

Periodical

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AMERICAN BEE JOURNAL

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DETROIT

June, 1945



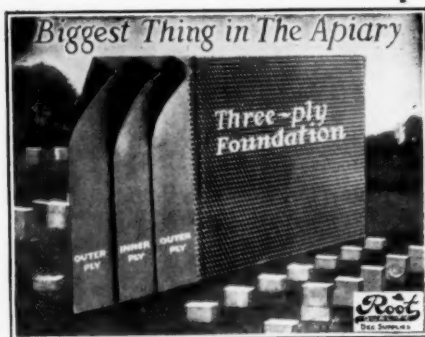
TO THE AMERICAN PEOPLE:

Your sons, husbands and brothers who are standing today upon the battlefronts are fighting for more than victory in war. They are fighting for a new world of freedom and peace.

We, upon whom has been placed the responsibility of leading the American forces, appeal to you with all possible earnestness to invest in War Bonds to the fullest extent of your capacity.

Give us not only the needed implements of war, but the assurance and backing of a united people so necessary to hasten the victory and speed the return of your fighting men.

William L. Deady
Don L. C. C. King
Augustine L. McManis
Alfred



WITHSTANDS HOT WEATHER

Non-Sagging Non-Stretching

Stretched cells reduce the brood area of combs

Drones eat up your profits

Stop this loss. For efficient, profitable combs use THREE-PLY

Order now. No advance in prices

THE A. I. ROOT CO. OF IOWA

COUNCIL BLUFFS, IOWA

BUY YOUR SUPPLIES EARLY



**Sections, Hive Bodies,
Frames, Foundation, Containers
and other bee supplies of
the finest quality**



**PROMPT SERVICE
GUARANTEED SATISFACTION**



August Lotz Company

**Manufacturers and Jobbers
of Bee Supplies**

BOYD, WISCONSIN

YORK'S Package Bees and Queens

Quality Bred Italians

We have just completed a heavy package bee season and due to extra heavy demand was unable to accept many late bookings for which we were sorry. For balance of season we are prepared to handle your rush orders for quick shipments on package bees or queens. Prices as follows:

2-lb. packages of bees with queens \$4.25 each, any number
3-lb. packages of bees with queens 5.25 each, any number
Young laying queens 1.25 each, any number
Queenless packages, deduct \$1.10 per package.

Yes, we are booking orders for 1946, same terms, subject to prices to be revised later. Those who had their orders returned this season or failed to get bees at all may avoid same difficulty another season by booking early.

YORK BEE COMPANY

Jesup, Ga., U. S. A.

(The Universal Apiaries)

ITALIAN

Queens Queens Queens Queens

Tanquary, a great name in bee production. We offer you good, laying young queens.

Good Queens our specialty
Write, wire or telephone your order NOW
Safe arrival guaranteed



15% discount on prices given below for the balance of the season

Quantity	1 to 24	25 to 49	50 to 100
2-lb. packages with queen	\$4.15	\$4.05	\$4.00
3-lb. packages with queen	5.15	5.05	5.00
Extra queens	1.25	1.20	1.15

Queenless packages, deduct \$1.10 per package.



Tanquary Honey Farms

(Inc.)

Lena, South Carolina

QUEENS ITALIANS—CAUCASIANS QUEENS

Lots of good ones ready to mail, so write or wire your order to us. It will have our prompt attention, whether large or small.

Safe arrival and satisfaction on every order, or queens will be replaced promptly. **By Air Mail or Clipped—at no extra cost.**

PACKAGE BEES

We can handle a few orders for packages now, so if you don't have those hives filled, rush us your order. **Prices after May 20th.**

Lots of	Queens	2-Lb.	3-Lb.	4-Lb.	5-Lb.
1-24	\$1.10	\$3.85	\$4.95	\$6.05	\$7.15
25-99	1.00	3.60	4.65	5.70	6.75
100 up	.90	3.35	4.35	5.35	6.35

Payable in U. S. Funds

THE STOVER APIARIES
MAYHEW, MISSISSIPPI

B-Z-B Honey Company

361 E. Valley Blvd.
Alhambra, Calif.
Los Angeles County

A Call For Help

Will you help us keep our customers happy? We are appealing to our old and new friends alike: "BRING IN OR SHIP US YOUR HONEY." We need it—B-Z-B jars need it—and the busy housewife needs it. **YOU HELP US HELP THEM KEEP UP THEIR ENERGY**



KELLEY—"The Bee Man"

Write for 1945 price list. We now have many items that have been short for some time. Prices remain steady except on bees. All stocks are low, so order early.

GLASS We again have a large stock of **ECONOMY** style glass jars ready for quick shipment

Carton of 24	1 Lb.	12 Lbs.	70c per case
Carton of 12	2 Lb.	9 Lbs.	42c per case
Carton of 6	5 Lb.	10 Lbs.	50c per case
Twelve cartons of 5 Lb.			\$5.00 per lot
Twenty-four cartons of 5 Lb.			\$9.95 per lot
Carton of 16 5-gal Cans			\$5.40

WALTER T. KELLEY CO. : Paducah, Kentucky

Package Bees--Carniolan Queens
EPHARDT'S HONEY FARMS

2-lb. pkgs. with queen \$4.00 ea. F. O. B.
3-lb. pkgs. with queen \$5.00 ea. F. O. B.
PLAUCHEVILLE, LOUISIANA

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This photo shows a portion of one of our queen yards containing over 6,000 nuclei

QUEENS (ITALIANS) Thousands available immediately.
Our capacity: (400 daily averaged thus far this season. Price \$1.00 each.)

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PACKAGES

Three pound with queen, \$5.00
Two pound with queen, \$4.00

ITALIANS

QUEENS

CAUCASIANS

Daughters of Queens Bred for Resistance

Bred to Italian Drones

90 CENTS EACH, BALANCE OF SEASON

2-Lb. pkg. bees with queen \$4.00 Over 25 years a shipper in U. S. A.
3-Lb. pkg. bees with queen 5.00 and Canada. Send for free circular

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CHOICE ITALIAN QUEENS

For immediate shipment, \$1.00 each. Your orders appreciated.

Rapides Apiaries
WINNFELD, LOUISIANA

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FEATURE ARTICLES—NEWS ITEMS
MONTHLY TALKS TO BEEKEEPERS

Subscription Rate

1 year, \$1.00; 2 years, \$1.50; 3 years \$2.00
In United States and Canada

THE A. I. ROOT CO.
MEDINA, OHIO

THREE-BAND ITALIANS FOR 1945 with Queens of Highest Quality

10% DISCOUNT FROM FOLLOWING PRICES FOR JUNE

	1 to 3	4 to 24	25-up
2-lb. packages with queens	\$3.80	\$3.70	\$3.60
3-lb. packages with queens	5.00	4.75	4.60
Young laying queens	1.15	1.10	1.05

Our breeder queens are from heavy honey producing colonies, non-swarming, long life and gentle. Prompt service for June.

E. R. RALEY, 710 W. Altamaka St., Fitzgerald, Ga.

BLUE RIBBON

Package Bees

"BEST IN THE WEST"
THOS. C. BURLESON, COLUSA, CALIF.

American Bee Journal Classified Ads
Bring Satisfactory Results.

► BESSONET'S ◀

We take this opportunity to thank our friends for their generous patronage this spring. It is unfortunate that so many orders had to be refused, but in keeping with our policy of prompt service, we had no choice in the matter.

Our QUEEN YARDS are being primed to take care of your orders for the balance of the year, so we urge you to plan now to use our queens this summer and fall. Advance booking of orders assures better service and enables us to plan our operations more efficiently. Deduct 10 per cent off our spring package prices for June.

QUEENS: 1-99, \$1.00; 100 or more 90c each

BESSONET BEE COMPANY, Donaldsonville, La.

HELLO FOLKS!

HERE WE ARE AGAIN STEVENSON'S LINE-BRED GOLDENS

To tell you our queens are available. We are sure you'll like us for we are really good. Prices: \$1.25 ea; 50 to 100, \$1.10; 100 up \$1.00.

STEVENSON'S APIARIES Westwego, Louisiana

Caucasian Queens

FOR BALANCE OF 1945 SEASON AT
90 CENTS EACH

Howard M. Davis

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SACRAMENTO, CALIFORNIA

RE-QUEEN

With famous gentle MOTT STRAIN, northern bred, pure 3-Banded Italian Queens. Prices same as last year, viz: 1 to 24, \$1.10 each; 25 to 49, \$1.05 each; 50 and up \$1.00 each. Terms: 25% cash with order.

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GLENWOOD, MICH.

FOR SALE

BRIGHT YELLOW AND THREE
BAND QUEENS

GRAYDON BROS.

RT. 2 GREENVILLE, ALA.

Light Italian Queens

Small order up to 20 sent by return mail

1 to 4, 90c; 5 to 24, 85c; 25 to 50, 80c; 51 to 100, 75c.

Neal's Apiaries

HAMBURG, LA., BOX 43

ITALIAN QUEENS PROMPT SHIPMENT

1-24	\$1.25
25-99	1.15
100-up	1.05

GOLDEN GIRL APIARIES

P. O. Box 1468, Mobile 8, Alabama

--Caucasian Queens--

FOR JUNE, JULY AND AUGUST: \$1.15
EACH, ANY NUMBER, GOOD QUEENS,

GOOD SERVICE.

BOLLING BEE CO., Bolling, Alabama

WESTERN CANADA BEEKEEPER

Subscription \$1.00 per year, \$1.50 two years, \$2.00 three years. In combination with American Bee Journal \$1.75 per year.

Timely topics on western Canadian beekeeping and all the news about Canada and Canadian markets. You cannot afford to be without the most up-to-date information in these days of great changes. Sample copy free. Address **WESTERN CANADA BEEKEEPER**, Wallingford Building, Winnipeg, Manitoba, Canada.

American Bee Journal

HAMILTON, ILLINOIS

June 1945 Vol. LXXXV, No. 6

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JUNE

3-Banded Italian Bees and Queens from Northern bred stock of proven quality.

2-Lb. Pkg.	3-Lb. Pkg.	Queens
\$3.50	\$4.50	\$1.10

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Hattiesburg, Mississippi

To assure yourself of obtaining the best of supplies, read the ads in ABJ.

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Manufacturers

Jobbers

MAGIC ELECTRIC WELDER

110 volt AC-DC; welds, brazes, solders, cuts all metals; easy to use; full directions. Complete with power unit, flame and metallic arc attachments, carbons, fluxes, rods, mask. Used by the navy. Guaranteed for one year. Splendid for farm use. Only \$19.95.

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Join a progressive cooperative now and safeguard your future market. We need the honey at ceiling prices. You need us to safeguard the time when selling is hard. Join now.

For particulars write

Illinois Honey Producers Assn.

Mt. Sterling, Illinois

LEATHER COLORED ITALIAN QUEENS

Untested, \$1.10 each, or \$1.00 each per 100. Tested, \$2.50 each.

Change to the Best.

Gold Flat Apiaries

NEVADA CITY, CALIFORNIA

ROOT QUALITY BEE SUPPLIES

GLASS AND TIN CONTAINERS
HONEY AND BEESWAX WANTED

M. J. BECK CO.

Successor to M. H. HUNT & SON
510 N. Cedar St., Lansing, Mich.

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If you are interested in Pigeons, you need the **AMERICAN PIGEON JOURNAL**, an informational instructive 52 page monthly magazine. Sample 15c; 12 months, \$1.50.

AMERICAN PIGEON JOURNAL
Dept. B Warrenton, Mo.

Comb Honey Wanted

Advise the quantity, grade, size section, and how packed.

Frank H. Hauck

P. O. Box 84, Kew Gardens, N. Y.
Bank references furnished on request

Italian Bees and Queens

Plan now on requeening after the crop, and for your 1946 packages.

HASTINGS' APIARIES

MESA, ARIZONA

BEEKEEPERS MAGAZINE

RT. 5, BOX 181 LANSING, MICHIGAN

Serving the National Federation

Subscription price, \$1.00 per year. Drop us a postal card today for your free copy and special introductory offer.

NOTICE—After June 1st the apiaries known as Baker and Running will be under full management and ownership of C. W. Baker.

1-24	Queens	2-Lb. Package	3-Lb. Package
25-99	\$1.10	\$3.85	\$4.95
100 up	1.00	3.60	4.65
	.90	3.35	4.35

We have never had any disease. Our bees get honey.

C. W. BAKER, Telegraph, Epes, Ala. Postoffice, Sumterville, Ala.



IF YOUR COMBS ARE
RIGHT AT THE START



YOU'LL ALWAYS HAVE
BEES FOR THE CROP

Dadant's Crimp-Wired Foundation Gives You DOUBLE INSURANCE

Right at the start, you get combs of all-worker cells, with few drones, each comb fit for three or four pounds of bees for the field when the bloom comes. All you need is a young, prolific queen to pack them with brood.

Such combs are the cheapest in the long run. They last you year after year; crop after crop; for long hauls; for extracting after extracting. If you have never used Dadant's Crimp-wired Foundation, send for a trial sheet, in a Lewis Slotted Bottombar frame, ready to give to your bees. They will give you the answer. Send 15 cents to cover cost of mailing.

GET YOUR WAX INTO USE. DON'T HOLD IT. PRICES ARE HIGH NOW.
We can store it for you, under fire protection and covered by insurance, at no cost to you. Ask for details.

DADANT & SONS : Hamilton, Ill.



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We Can Book a Few More Orders
FOR 1945
At prevailing prices.
THE VICTOR APIARIES
UVALDE, TEXAS

Bee Supplies by Mail

Save time—Save travel—Buy close by
Lewis-Dadant Supplies in stock.
43½¢ in trade for your beeswax.

SWISHER'S MARKET
P. O. Box 806 Springfield, Ohio

Palmetto Quality Queens

Our summer prices on our Three-Band Italian Queens are as follows:

1 to 10 queens \$1.00 each
More than 1090 each

We appreciate your business and guarantee you a square deal.

Orders filled promptly.

C. G. ELLISON & SONS: Belton, S. C.

Sunny Nook Apiaries

We wish to thank all of our many customers for their orders during the past season.

508 W. JEFFERSON STREET
STOUGHTON, WISCONSIN

Italians & Caucasians
Queens rest of season
\$90 per 100

D. T. WINSLETT

1015 Sonoma Ave.
NO. SACRAMENTO 15, CALIFORNIA

PRE-WAR SERVICE & QUALITY

Package bees headed by our famous queens. May we have the privilege of adding your name on our list of satisfied customers.

	Queen	2-Lb. Pkg.	3-Lb. Pkg.
1-24	\$1.25	\$4.00	\$5.10
25-99	1.15	3.75	4.80
100-up	1.05	3.50	4.50

Send us your queen orders.

Apiaries accredited and certified by the Alabama Dept. of Agriculture.

O. K. ANDERSON & SON
COFFEE SPRINGS, ALABAMA

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THE BLUE BOOK OF BEEKEEPING
By E. L. Sechrist

Something brand new in bee books, the principles of getting a maximum crop, at minimum expense. E. L. Sechrist was beekeeping specialist for the U.S.D.A; and is a commercial beekeeper in the U. S. and in the tropics.

Limited edition at low price—\$1.50 postpaid.
With two year subscription to ABJ, \$3.00

American Bee Journal
HAMILTON, ILLINOIS

JENSEN'S Package Bees and Queens for June

We thank God that V-E Day has come. Now let's shorten the road to Tokio by buying another Bond. We can rejoice with those whose sons will be spared and will return when the war is over, over there, but we can also sorrow with those deprived of this joy. We cherish the memories of one so young and fine who gave his all. May we, every loyal American, resolve that we will appreciate more than we have in the past the Freedoms and Privileges we enjoy in this great country of ours.

QUEENS

The finest and best in our 31 years of commercial production.
1-24, \$1.10 EACH. 25 AND UP \$1.00 EACH.

THREE POUND PACKAGES WITH QUEENS
1-24, \$4.50 EACH. 25 AND UP, \$4.25

THREE POUND BOOSTER PACKAGES,
(Queenless) Deduct price of queen.

JENSEN'S APIARIES :: Macon, Miss.
THE HOME OF "MAGNOLIA STATE" STRAIN ITALIANS

RED STICK APIARIES & CO. PACKAGE BEES — QUEENS

Twenty-four years as commercial queen breeders. Oldest combless package bee shippers in Louisiana. Special priority to returned veterans with empty equipment.

ITALIAN STOCK—RESISTANT STOCK—YOUR CHOICE

Quantity	Queens	2-Lbs.	3-Lbs.
1-24	\$1.25	\$4.00	\$5.00
25-99	1.15	3.75	4.80

Terms: Remittance with order.

RED STICK APIARIES & CO.

Main Office, 125 Lessard St., Donaldsonville, Louisiana, Telegraph, Western Union

NEEDED SUPPLIES—HARD TO BUY (We Have Them)

No. 14—4 frame Non-Reversible Extractor, Hand Power	\$14.75
No. 6—2 Frame Non-Reversible Extractor, Hand Power	11.75
10 Frame Wire Queen Excluders, Wood Bound, 5 or more, each	.80
25 Lb. Lots Thin Surplus Foundation (following sizes) 3½x16, 4½x16½, 4½x17½, 3 11/16x14½	19.75
25 Lb. Lots "Hercules" Plain Brood Foundation	17.50
25 Lb. Lots "Hercules" Wired Brood Foundation	18.50
Brood Foundation, Sizes 8x16¾ or 8½x16½	
HAVE YOU TRIED "HERCULES" WIRED IRONSIDES FOUNDATION?	
WITHOUT A DOUBT THE BEST FOUNDATION ON THE MARKET	
100 Sheets \$12.50	50 Sheets \$6.50
8½x16½ ONLY	10 Sheets \$1.35
2 Lb. Package Bees with Queen (untested-untreated)	\$ 3.50
3 Lb. Package Bees with Queen (untested-untreated)	4.50
1 Queen Bee, Ultra Violet Ray Treated, each	1.25
Wire Face Bee Veil, each	.80
Bee Escapes, each	.12
Smokers 4x7 each	1.00
2 Inch Hive Staples, per lb.	.30
COMB HONEY SECTIONS	
No. 1 Grade, 4½x4½x1½, per 500	6.60
No. 2 Grade, 4½x4½x1½, per 500	5.90
No. 1 Grade, 4½x4½x1½, split 3 sides, per 500	7.10
Cellophane Wrappers for above sections, per 100 sheets	1.25
Cellophane Wrappers for above sections, per 500 sheets	5.50
1 Lb. Glass Honey Jars, packed 2 dozen, per case	1.00
2 Lb. Glass Honey Jars, packed 1 dozen, per case	.90
5 Lb. Glass Honey Jars, packed ½ dozen, per case	.55
5 Lb. Friction Top Cans, packed 50, per carton	3.75
10 Lb. Friction Top Cans, packed 50, per carton	5.00
Bee Gloves, per pair	.75

TERMS: CASH WITH ORDER, F. O. B. CINCINNATI
WE WILL BUY YOUR HONEY AND BEESWAX AND PAY THE CEILING PRICES
NO LOT TOO SMALL OR TOO LARGE. WRITE US.
We also render wax from your old comb or cappings and work wax into comb foundation. Write for our general price list.

THE FRED W. MUTH COMPANY 229 WALNUT STREET
CINCINNATI, 2, OHIO

PURE ITALIAN QUEENS AND PACKAGE BEES

Due to heavy booking we have sold our supply for April and early May shipments. Can accept additional orders for shipment after May 10th.

PRICES			
Queens 1 to 49	\$1.10	50 and up	\$1.00
2-Lb. Package with Queen	\$3.45	50 and up	\$3.25
3-Lb. Package with Queen	4.45	50 and up	4.25
4-Lb. Package with Queen	5.45	50 and up	5.25

HOMAN BROS. : R. F. D. 2 : Shannon, Miss.

Middle Tennessee Apiaries : Leather Colored Italian Queens

From imported breeding stock. 1-25, \$1.25 each. 26 or more \$1.10 each. One-fourth books orders—balance before shipping. Add 5 cents for all queens by air mail.

ALL QUEENS AFTER JUNE 15TH \$1.00 EACH

J. B. TATE & SON

1029 No. 4th St.

Telephone 34509 M.

NASHVILLE (7), TENNESSEE



**H-A Honey Jars move your product
from shelf to home.**

HAZEL-ATLAS GLASS COMPANY

WHEELING, W. VA.



Carpenter's Electric Embedder

PATENT PENDING

"Better Bee-Havior"

COPYR.

"It's Complete, It's Simple,
It's Speedy, It's Accurate"

This machine embeds all four wires
at once, evenly, and handles crimp-
wired foundation.

Terms, \$7.50 Cash, f. o. b. Riverside.

Dealers very satisfactory discounts.

Shipping wt. approximately 5½ lbs.

G. A. CARPENTER

4266 Homewood Court
RIVERSIDE, CALIFORNIA

Italian Queens

90c each

—any quantity

The Puett Company

Hahira, Georgia

Italian Package Bees and Queens

2-lb. package with queen \$4.00

3-lb. package with queen 5.00

Queens, each 1.25

Add 25c per package for orders of less
than 50 packages.

JOHN S. SHACKELFORD

LIVE OAK, CALIFORNIA

QUEENS

YELLOW ITALIAN QUEENS

Select untested laying queens

No C. O. D.

1-24, 95 CENTS

25 up, 85 CENTS

PLAUCHE'S BEE FARM

HAMBURG, LOUISIANA

● Prompt Shipment on Queens ●

ITALIAN AND CAUCASIANS

As Good As the Best **\$1.00 each**

Book your 1946 packages NOW

WEAVER APIARIES, Navasota, Texas

GOOCH'S Best Package and Queens

CAN MAKE IMMEDIATE DELIVERY

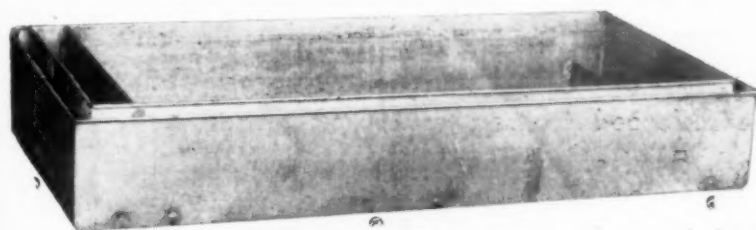
Light 3-Banded Italians, also Italians bred for resistance. Both breeds gentle, prolific, hardy and heavy honey producers. Live delivery and satisfaction guaranteed. It is not the price of the queen that counts, it's the honey that she puts above the excluder, and our queens will do that. Every queen must please.

Queens	\$1.15
2-lb. bees with queen	3.75
3-lb. bees with queen	4.75

JESSE E. GOOCH : R. F. D. 3, Box 50-A : Pine Bluff, Ark.

A COMPETE FILTERING SYSTEM

Whether you use a hand power or several power extractors



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HONEY
FILTER

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- 2nd—by removing practically all wax and foreign objects.

A combination of the Decanter Tank and Honey Filter between the extractor and the storage tanks makes the ideal set-up for users of power extractors.

While we did make some Decanter Tanks the past season the War Production Board has now allowed us enough material so that we can advertise them.

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MARSHFIELD, WISCONSIN**

Caucasian and Italian

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For Customers Only

A GAIN we are in the undesirable position of not being able to fill orders for wooden goods except from former customers. Restrictions imposed by the War Production Board will limit us greatly in the manufacture of bee supplies, indicating the great need for lumber to supply our troops.

This limitation does not now apply to bee comb foundation. Whether or not it will apply to other items will depend in part upon supplies of material and the manpower to work them. Every effort will be made to fill orders, but due to the short supply we may have to reduce shipments to any one individual in order to equitably distribute the supply available.

A large stock of comb honey cartons and glass jars (particularly in the 5-pound size) is available. Smokers and veils are in fair supply. Send us your list of needs and we will gladly tell you what we can ship. Never before in the history of this company have we been forced to make such an announcement. How early in 1945 relief may come is problematical.

However, we know you will bear with us if such restrictions imposed by government agencies will help in saving a single life or shortening the war even one day. We can sympathize with you who have sons or daughters in the service. A total of 67 of our employees are now in the armed services of U. S. A.

Write for new low prices on glass containers

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How Would You Propose to Put Honey, Like Oranges, on Every Table?

HONEY is being used more extensively during these war years than before and many people know its possibilities for the first time. The big problem is to introduce it to the greatest number of people and then with high quality and constant supply assure a good postwar market. Perhaps the best way is to profit from the experience of nationally known food distributors. Extensive advertising program through press, radio, and poster. Physicians have long known that honey is valuable particularly for babies. Why not tell Mr. and Mrs. Average Citizen about these facts? Satisfied customers are the best assurance of demand. Low grade honey will not do. All honey must be sanitarily packed, correctly labeled, standard in variety, kept in good condition.

L. Faucett, Tennessee.

— V —

If you want to put honey on every table it will have to be sold to the doctors. The best advertising milk and oranges get is when the doctor asks "How much milk do you drink, do you eat oranges?" It makes those products important. My doctor does the same for honey and it certainly has an effect. I've never heard of any other doctor doing it.

J. Frederick Powers,
New York.

— V —

When I was young most of the oranges came from Santa Claus or grandpa and grandma. They seemed large as pumpkins. Today I bring them home by the crate and we dive in. Publicity, food foundations, simplified distribution have contributed to bring them to us but only through the organized efforts of the producer.

They should stick together, control their market often disposing otherwise of part of their crop.

Bees are a hobby with me. I have had them for seven years and I have often longed for simplified process of management and the strong support of a honey producers' organization.

Sugar rationing suggests that sugar is perhaps honey's greatest competitor. A few years back they were both about the same price.

My wife cooks successfully with honey and tells her friends about it and they do the same but when sugar becomes plentiful again many honey users will return to it unless price relations are adjusted or honey is given "very good selling."

Honey seems to move slowly through stores. I have friends and neighbors who have standing orders with me because they say my honey is better than store honey.

I think the American Honey Institute should be backed to the point when it will iron out all our difficulties. The milk industry has an association which levies a rate per hundred weight of milk.

The association takes care of our interest from the other end. It meets the public, builds good will, hunts new markets, suggests market levels, disposes of surpluses and at present is putting extra money into cooperative plants. Why not something like this for the honey producer.

Walter B. Pratt,
Indiana.

— V —

We might settle for a formula applied to the chest here and there to the advantage of every beekeeper. Back in the days when I was just old enough to start remembering things, I awoke one morning breathing until I could be heard all over the house. If it wasn't pneumonia the partition between pneumonia and my brand was very thin. A beekeeping neighbor chanced to come in and looking over the situation asked my mother to get a flour sack. Those old glazed paper masterpieces with blue insides and pictures of somebody's grandmother making such mouth watering things on the outside. Upon being furnished with this he cut from it a chest protector, removing the blue inside and throwing it away, placing the protector on the chest glazed side out, after spreading it with extracted

honey. It sounds pretty sticky, but in a surprisingly short time the skin of my chest had absorbed the honey as if it wasn't there and I could begin to taste it. The process was repeated until the skin refused any more, the protector being left on even though dry, to keep air away from the open pores.

The higher the fever the quicker the absorbing is done and the more honey the skin takes up. In case of colds and pneumonia the victim either vomits or rids himself of his unwanted difficulties by the regular channels of elimination. I have never seen it fail to work. It is also equally protective when applied to the back. I have been telling physicians about this for years but never have I found one who refused to try it and few ever go back to old methods.

So your family physician is your key to more honey sales. Any successful use of honey in his eye sells a small part of the entire crop of the United States and sells honey too, to a small part of the American Medical Association.

M. E. Genung, New York.

— V —

1. Produce the finest honey you can. Well ripened, not overheated, never permit honey from cappings of black combs from your capping melter to mix with table honey. Be able to look your customer in the eye and sincerely proclaim that yours is as fine a honey as bees can make.

2. Take the public into your confidence. Tell them all about honey so they may better select what they like and avoid that which is not so good.

3. Be honest and forthright, generous with measurements and samples and guarantee the honey must please the one who eats it.

4. Remember it is better not to advertise at all than to advertise poor honey. The quality of a product is remembered a long time after the price is forgotten.

I have practiced these suggestions for twenty years and I have no honey

WHAT DO YOU THINK?

What are the probable future changes in seasonal management? From the early days of commercial beekeeping with the movable frame hives until the present time management has gradually assumed a standardized pattern. It has been outlined and codified and filed away as something we must do each year, just so, always. But aren't we facing far-reaching changes, perhaps in equipment, perhaps in bees, perhaps in what we do with them? What do you think?

What can you propose in this department. Give us something to think about. Regular contributor payment will be made for whatever used. Send in your contribution by May fifteenth.

selling problem. Many times the annual per capita consumption of honey is eaten in my territory and I sell my honey for more than anyone else on the market.

Joe Marty, Oregon.

— V —

First we must get American and Canadian babies to eat honey. One of our Canadian companies with the help of physicians, has persuaded thousands of young mothers to include canned milk in the baby's diet. Physicians themselves are given a supply of the product to induce them to put it over. Each new mother is given a baby book bearing the name of the "essential" product and its values. Later the company donates the cost of the first baby picture. These considerations at this important milestone in the mother's and baby's lives go over big. One word from the attending physician can establish a product.

We can afford to copy these tactics. A two pound tin in attractive colors, a tiny baby book to record the delightful history of Mother's Honey will do much to make a favorable impression in establishing this food in the diet of babies. A little cooperation from a few physicians would soon make babies "honey conscious."

I do not believe in manufactured concoctions for babies. We have bypassed nature's health food too long. Even the Bible tells of the value of honey to the stomach. In this day when vitamins in manufactured forms are overworked let's go back to the noble wisdom of Solomon and without any fear or apology offer honey as nature's provision for a healthy stomach.

Working together a Honey Baby Picture could be sponsored at moderate cost and the winner given an expensive perambulator. Small children could be reached by contest. At this age they like to do a little thinking. The young people are thus made honey conscious by conducting their own Amateur Hour with prizes, working in other entertainments, as speeches and reciting with the climax of a young lady and a young boy in suitable garments chosen as the honey king and queen with pictures to be in the local paper.

By these methods people would gradually become "honey conscious." What do you think?

D. S. Dinnick, Toronto.

— V —

Find the honey that will please the individual. A universal blend is not possible. Step up local advertising with the accent on quality. The public will hunt the beekeeper when he gives them something to talk about—and eat!

Carl M. Teasley, Tennessee.

Who's It?

THIS young man looks studious and thoughtful. He was, he is. Probably he is known to more beekeepers in the southern states than any other single individual. Yes, he's been a beekeeper, also a queen rearer. He is a manufacturer and merchant.

That's almost saying too much. He is too well known. Your guess please.

If you guess right we will give you three more months' subscription. Please reply by the fifteenth.

* * * *

Last month's—Dr. C. L. Farrar, Division of Bee Culture, North Central States Bee Culture Laboratory, 105 King Hall, University of Wisconsin, Madison 6, Wisconsin.

The number of feather shots increased this time. Good. But there was the usual run of wrong guesses. Evidently not everybody was sure. Joseph Garre', Aniwa, Wisconsin, writes, "It could be Dr. Farrar. How about it?" Alvin Bausman, Fennimore, Wisconsin, says this picture of Dr. Farrar "could be taken at Laramie, Wyoming, when he was connected with the Government Laboratory there." Ivan Whiting follows with the same "the introduction and the Wyoming background gives him away although the picture hardly looks like him." Kenneth Hawkins says, "My guess on the Eskimo against the winter background is Farrar. Note those Pepsodent teeth. Also the photo could have been taken yesterday in Wisconsin." T. M. Dobrowsky, of New Orleans, "If this Who's It is not the justly famous Dr. Farrar, I'll stop eating honey for a month!" Carl M. Teasley, Apison, Tennessee, "I want to tie the nickname Happy to this picture. I think it is C. L. Farrar. If it's not, Glory



Dr. C. L. Farrar today



Hallelujah would be a second guess." Ivan W. Parks, of Romeo, Michigan, is sure that our mention of advanced ideas about bees and the problems of research and honey production stamp it as C. L. Farrar; and J. F. Garner, of Elmore, Minnesota, claims "you cannot hide his identity with the setting and you couldn't say much about him without revealing it. I had many happy times with him at Kansas State College."

The remarkable thing this month was that there was such a large number of off shots for Charles Mraz, of Middlebury, Vermont. Now Charles you should show yourself. You really should. Here are some of the comments. From Preston Kinard, Louisville, Mississippi, "his outdoor habit and background make it Mraz to a 'tee.' It seems to me as certain as Dr. Munro's picture was last year." His father, W. P., goes on in the same strain, "My mind carries me to Charles Mraz. My guess may be like he said his skiing was in ABJ, page 163, April 1941. It fits Mraz better than anyone I know." V. O. Lee, of Charleston, Arkansas, "I have never seen Charles wearing glasses but I will say it is he. New England's largest beekeeper." Juan Vargo, of Granite City, Illinois, gives him this sort of a panning. "It is Pan Karol Mraz or Charles Frost Mraz. He likes to go into mountains in the winter and he grew up with the bees."

Harry T. Starnes, of Crawfordsville, Indiana, thinks it is G. H. of ABJ and he certainly hands our editor a good one in "Nature has created some strange fellows in her time, at least that grin and glasses go with Cale. That background looks out of place but the world changes and maybe Cale did too." E. A. Babcock, Milton, Wisconsin, passes the palm to Dr. Farrar's fellow worker W. C. Roberts.

THE MYSTERY OF THE SWARM

By ALLEN LATHAM

THE honeybee has furnished more problems than perhaps any living thing and the chief of these is the swarm. No subject in beekeeping has had more written about it than the cause of swarming. It must be apparent that there is one and only one fundamental cause. The various suggested ones, hot sun, crowded brood nest, excess supply of royal jelly, aging queen, all may help hasten the swarming but none of them can be the real cause.

All living things are subject to death. There is no fountain of youth other than correct living and even then death comes. To prevent the extinction of any living form there had to be the birth of new individuals and for this purpose most forms of life have the two types, the female and the male.

With the creation of two sexes there came into existence an electric attraction between them which brought about their union and their union brought about new individuals resulting in the continuance of life.

Sex, in the honeybee however, brings us against a stone wall. The union of two sexes in the case of bees does not bring about new individual colonies but only bees which are units of a single colony. The death of a bee does not affect the total bee population unless the entire colony dies. How does sex enter our problem? I think I found the answer to the fundamental cause of swarming.

It is impossible to prove or disprove my solution. The mystery goes back millions of years for the evolution of the honeybee is older than is that of man. While man was possibly a small animal running on all fours the bee was practically as it is today.

As said before we must lay aside all the usually suggested causes of swarming as their very numbers disprove them and swarms occur when each or all of them are absent. Sexure is the cause of increase in all other forms of life. Could it be the cause of increase with the bees?

As I grow older I wonder if there is to be a future existence for me. Do I wish to exist forever? Will there be a possibility of ending endless existence? I find solace in the thought that if I do exist after so-called death, and I am free to move with the velocity of light, wherever I care to go I can find the solution to many problems. There perhaps I can find bees in their very beginning and

in some other sphere find her in an advanced state. However I must depend upon what grey matter I have now to solve the problem for the present.

The most valuable thing nature has given us is the power of thought but like all other human blessings it must be kept under control.

Now how can sex come into the problem of the swarm? Female is the stronger of the sexes and the real seeker of sex-union. When the union of the queenbee and the drone brings about the birth of thousands of worker bees, it is presumed that those workers know none of the joys of their sex.

But let's consider the evolution of the honeybee as I see it. The queen bee in the remote past, like the bumblebee now, started a nest all alone. It took Nature many thousands of years to create the colony and there must have been a period when young queens went out and mated and the workers also went out and a few would join a mated queen and thus would come the beginning of a small colony of bees. Many workers would return to the old nest and possibly one of the mated queens so the old colony would continue. Then came rivalry, if two queens came back together or if two queens were attended by a few workers. One was stung by the other. Then came the time when the mother queen became uneasy in the presence of developing rivals in the queen cells. Hence the swarm evolved, the old queen leaving before the young queen had even a chance to emerge.

I seem to say that the real cause of the swarm is the unease of the old queen. Have I not, however, seen numerous cases where the bees went out and the queen refused to go so it is not the unease of the old queen. Evidence seems to say it is unease somewhere else.

Return to the human again. Who denies that maidens take great delight in the wedding ceremonies of girl friends? In the colony of bees there were hundreds of worker bees deprived of the privilege of their sex, but they were not deprived of the urge of their sex. They liked the excitement though deprived of the results.

What then is the impulse that brings about the issue of a swarm? That impulse is the residual sex-instinct of the worker bee.



Queen bees acquire the mating instinct at the age of five days and sometimes earlier. The worker bee is slower in development and has a belated sex-instinct and a weak one. Nevertheless I believe it brings about the swarming fever.

When a nurse bee ceases feeding of the larvae and ceases other of her household duties she comes into the golden age of her lifetime. From ten days to possibly fifteen days of age she leads a life of freedom. She can do as she chooses. If you open the hive you will see nurse bees feeding the larvae, wax-workers building comb, the queen laying eggs, field bees leaving for a trip to the field, pollen-loaded bees dropping their loads into cells but did you see a number of youthful looking bees, lean and active, occupied with no set duties. In these lies the spirit of the hive. They rule the actions of the colony. I could write many pages about that.

This bee I named years ago the control-bee, a free agent though she takes on herself freely various duties of the hive. We get more stings from bees of this age than any other. They are the bees that come out by hundreds if you are not careful. And she is the worker that feels the urge of sex.

I feel I am on the road to truth concerning the mystery of the swarm. I have proved it many times—hundreds in fact.

When I bred and sold queen bees I depended upon bees taken from my numerous apiaries for rearing these (Please turn to page 196)

OBSERVATIONS ON NOSEMA

By L. F. CHILDERS

IN 1942 when Dr. Haseman and I began experimenting with sulfathiazole as a possible cure for American foulbrood we had our minds fixed solely on the behavior of the developing brood. We were anxious to know if the larvae would survive the effects of the drug and to know if they would emerge healthy and strong. We were so intent on this phase of the work that it came as a definite surprise to find that the treatment was exerting a beneficial effect on the old bees themselves, and this benefit came about and was completed within the first thirty days. We first noticed that the bees were less hostile. Whole inspections could be made with the least bit of trouble and rarely a sting. The bees took on a brighter look really, seemed larger and certainly were more energetic. It has always been thought that foulbrood did not affect mature bees and we did not know of any other disease that could or would exert such a lethargic influence. It was more than a year later before we could link that effect up with its probable cause. In the meantime we treated nearly one hundred colonies and found that reaction in all of them.

We never suspected Nosema until articles began appearing in bee literature about it. It was of course too late to get tests on the treated colonies in the apiary but we could make tests on a new shipment of packages that was due April first from the same locality in the South where we had obtained our packages in 1942-43 and the season 1944. When the packages arrived the hives were numbered and samples sent in for Nosema test. The report showed a 61.7% infection. Some packages were much worse than others. These packages were fed the same kind of treated food that was given to other colonies affected with foulbrood. Each package got approximately the equivalent of three half gram tablets of sulfathiazole before feeding stopped. Subsequent tests during mid and late summer showed them clear of Nosema infection. No foulbrood has ever appeared in these packages although they received two combs of honey made by infected bees and were hived on dry drawn combs made by the same bees.

Some interesting side lights appear when comparing the behavior of the 1944 packages (treated packages) with those of 1942 and 1943 which were untreated the first summer. The

1942 packages were headed with resistant queens. When the spring of 1943 arrived there were less than twenty in the yard, over a 60 per cent reduction. When the spring of 1944 arrived there were seven resistant queens left and about twenty of the 1943 shipment of fifty packages all affected with foulbrood. Under treatment the resistant queens snapped out immediately, the non-resistant queens reacted slower but all came clear by May first. Before the bees were put away for winter in the fall of 1943 a severe cold snap of a week's duration intervened. All the weak colonies were killed and when we cleaned up the frames they were found to be densely covered with dysentery—one of the main symptoms of Nosema—we have never found that in any of our treated colonies. All colonies in 1944 and 1945 had been receiving treated food in the early spring and none has shown any dysentery or spring dwindling.

I have kept bees for thirty years and this year's lot is the strongest I have ever had. The early feeding of supplement is no doubt a contributing cause but I am certain the absence of Nosema is the main cause, for they were strong when I put the supplement in. In 1943 there were sixteen supersedures in fifty packages, in 1944, with treatment, there were six supersedures in the same number of packages. Every daughter proved to be better than her mother, but one daughter turned out to be a drone layer this spring.

As a lot the 1944 packages made considerably more honey than did a similar lot in 1943. Because of treatment they built up with more strength, but the same pattern ran through both lots, that is, some colonies stepped right up in honey production while others were just plain tail enders. The 1943 tail-enders all succumbed before winter, but last winter I started eighty colonies, tail-enders and all, and just lost two colonies from starvation. None of these colonies were wrapped and twenty were badly exposed. I never found a single spot of dysentery in any of them and any spring dwindling could not be detected. I am certain that the absence of Nosema contributed greatly to that record. It should be remembered that in these experiments covering now three years and beginning the fourth we have

treated over one hundred colonies for foulbrood and every one has given reactions indicating the presence of Nosema.

The reader can draw any conclusions he likes from these data, but to me it is plain that we are not dealing with foulbrood alone when the bees show that disease. There are other bugs under that chip. I am ready to believe that foulbrood is nothing more or less than a detestable scavenger that makes an unholy mess out of its host which is first the victim of other ailments. Follow me for a minute and see what you think. My bees are housed in old equipment. It has been through three sieges when every hive was lost. The season that I had the fifty packages headed with resistant queens I pulled the bottom boards, the inner covers and the tops apart and with a plane cut down to new wood and with a blow torch scorched the insides of the brood chambers and purchased new frames and started on foundation. You have just read the record above. Many of the combs today are those from which the bees have cleaned foulbrood scales. In 1944 I stopped feeding (Please turn to page 203)



AN EIGHT-POUND SWARM

An eight pound swarm hived in a Modified Dadant hive on full combs July 20th extracted 150 pounds of honey at the end of the season. So the swarm is a producer. Don't let them get away.

C. E. Ghehiere,
Montana.

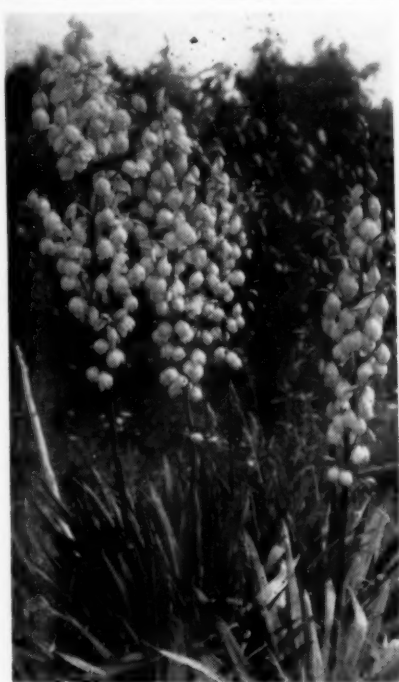
HONEY PLANT COMMITTEE REPORT

National Federation of State Beekeepers' Associations

ALL beekeepers realize the need for increasing bee forage. A serious problem has been created by a changed pattern of agriculture due to war requirements and to other trends such as reduction of sweet clover acreage and larger stands of red clover.

During the year members of the Honey Plant Committee submitted individual reports of what seemed to them the most logical approach to the problem. At a meeting of the Boyce Thompson Institute, Yonkers, N. Y., these reports were reviewed and at the beginning of the National Convention in Chicago in January the Committee met again to shape up a final report, which is given here.

Recommendations are based on the necessity of adequate honeybee population in the maintenance of a stabilized agriculture and recognition of the fact that such can be maintained only when there are enough forage plants to insure profitable honey production.



YUCCA

The cultivated kind, also called Bear Grass or Meat Grass. The tough leaf straws once were used to hang home cured meat in the smokehouse. Probably of little value to bees.

Paul Hadley,
Missouri.

Recommended permanently:

1. That the National Federation and other allied agricultural bodies foster the establishment of a project in the Bureau of Plant Entomology and Plant Quarantine on pollen and nectar yielding plants, shrubs and trees involving, (a) Insect pollination studies; (b) Factors governing nectar secretion; (c) Breeding work developing plants producing greater quantities of nectar of high sugar content; (d) Research on developing disease-resistant strains of sweet clover that are better adapted to agricultural uses and that have a long blooming period; (e) Research on plants, shrubs, and trees supplying nectar and pollen and offering possibilities for industrial uses in supplying oil, fiber, perfumes, lumber, etc.

2. That a concise letter be written regarding the dependence of agriculture on pollination in the production of vegetables, fruits and seed crops, emphasizing that it is through honeybees only that adequate legume seed stocks are available so essential in the maintenance of soil fertility; putting nitrogen in soil, adding humus to hold water, improving the physical structure. That legumes are the means of supplying green and dry forage of highest protein and vitamin A content for livestock. That such a letter be sent to (a) Secretary of the United States Department of Agriculture, (b) Chief of the Bureau of Plant Industry, and Entomology and Plant Quarantine, (c) State Directors of Agriculture, (d) State Directors of Extension Service, (e) Deans of Agricultural Colleges, (f) Directors of State Experiment Station.

It is urged that State Beekeepers' Associations have most accurate information regarding the seriousness of the bee forage situation and determine how vigorous a program should be initiated for the state; that the Departments of Agronomy, incorporate the bee forage problem with their other farm forage projects; State Highway Department to encourage planting their right-of-ways with legumes contributing to its beauty and most suitable for preventing erosion; to Railway Companies because of the opportunity offered for increase in bee forage areage on right-of ways; that State Departments of Soil Conservation use legumes for soil erosion and to foster a program of selecting shrubs and trees for erosion control which would supply more nectar and pollen; that Wild Life Conservation Agencies, call attention

to the fact that sweet clover cover is best adapted for many forms of wildlife, encouraging mixed sweet clover seedings; that the AAA make better use of the honeybee population in increasing seed production and cooperate in moving bees to areas where they are needed for pollination; that encouragement be given to the planting of nectar and pollen plants in state and city parks.

County Beekeepers Associations are urged to seek the aid of the County Highway Department and to map the location of bee yards so County Agricultural Agents may use it to encourage seed production in areas where bees are abundant and give publicity about the value of bees to agriculture.

Individual beekeepers may pay apiary rents with seed, reduce the size of apiaries to meet the acreage of plants, plant sweet clover in excess wasteland and if they own farms use legumes for forage and seed production.

Commercial beekeepers should explore the possibility of owning their land and developing seed and honey production together.

Beekeepers generally should distribute literature to farmers on the "value of bees in pollination" and encourage the growing of legume seed.

Members of the Honey Plant Committee are: Dr. S. W. Edgecomb, Research Director, W. Atlee Burpee Company; Dr. Norma Pfeiffer, Boyce-Thompson Institute; Dr. James I. Hambleton; Glenn O. Jones, President, Iowa Beekeepers' Association; Frank C. Pellett, American Bee Journal; M. J. Deyell, Gleanings in Bee Culture; Barney Remer, Sioux Honey Corporation; R. B. Wilson, of the John Paton Company; Professor H. A. Scullen, Oregon Agricultural College; and W. E. Dunham, Ohio State University.

— V —

COMMENTS FROM THE SERVICE

I look forward with great interest to the day when I can return and carry on in beekeeping in a way which will consume all of my time instead of a portion of it. I wish that it were possible for me to have at least one colony here on this island for experimental purposes. I have not seen over a half dozen single bees on the island. The tropical fruit which all grows wild has an unusually poor yield. There is one farm on this island operated by the army. We manage to get some fresh vegetables occasionally. The yield is very low. The farm covers about three hundred acres. I am with a construction battalion maintenance unit better known as the "Seabees."

A. C. Holland.

WHAT IS COLONY MORALE?

By Ralph W. Barnes

FOR twenty-five years I have heard about this thing called Colony Morale. Apparently there is no other way to explain the difference between colonies in the results obtained from given manipulations under similar conditions. In the February Journal the answers to this question cover about everything from furnishing bees with pretty new hives with nice new paint to supplying them with enough home work to keep them out of mischief. I often wonder if anyone has tried mesmerism.

Before we can hope to do something for our colonies, wouldn't it be well to determine first what it is that needs to be done. It would be out of place for a doctor to treat a patient for a broken leg if he only had a headache.

There is so much we do not understand about bees and this ignorance covers about every phase of beekeeping from breeding and selection of stock on down. It might well be that some disease that we yet know little about has a bearing on colony morale, or that it is entirely a matter of stock.

I do not deny or minimize the importance of the problem. There is a need for some real scientific research. Instead of kidding ourselves we should admit the fact that we do not fully understand our problem, then we would be in a place to set up a demand for some investigation and pressure to get funds for the investigation to be undertaken.

We would also be in a position then to demand that the United States Department of Agriculture release the findings of their laboratory as fast as they are made without the long delays that now occur.

The real danger to our industry in the future is under-production not over-production. Unless we can produce large crops every year from every colony with a reasonable degree of certainty the industry cannot advertise our product nor can any packer or distributor do so in a manner comparable to other foods.

If however by the aid of research we can increase honey production so that it will supply a real natural place before the consumer it is a full assurance to us of a solid, economic future.

We cannot afford to ignore or guess about any condition that prevents the production of the largest possible crop from every colony in our api-



aries. Scientific research is the tool that will open the door to us.

Nebraska.

— V —

PASTURE FOR BEES AND COWS

Would you please help me in finding something to plant that would help my bees as a honey plant and my cattle for hay or grazing. I have 300 colonies and 50 head of cattle. I have plenty of land I could plant in something. The land here is red hills and some creek bottom land.

Georgia.

Answer:

As to your problem of finding a plant which will provide forage for your cattle as well as for your bees, the thing which comes to my mind is a lespedeza of a perennial type which yields large crops of honey in Japan. The plant is very coarse and woody in its habits but does provide a large amount of browse for cattle and the bees work it very vigorously. There are really two of these tall growing varieties, either of which would probably succeed with you. One is lespedeza bicolor and the other is lespedeza cryptobatra. Unfortunately, I do not know where you could go to get any seed of either one in any quantity. It is possible that you might be able to get a small amount with which to start from the Bureau of Plant Industry, at Beltsville, Maryland. My son, Melvin Pellett, of Atlantic, Iowa, has been saving the seed from our test garden plot but we are a little too far north to permit the seed to ripen properly and most years, frost catches it before it is fully ripe. In your locality, I feel sure that there would be no trouble on this point and I would expect it to be well suited for pasture and control of soil erosion. The plant grows about as high as one's head and the stems are as thick through as one's thumb so they are entirely too coarse for hay. In Georgia, I would antic-

ipate that they might be pastured over the greater part of the year and supply a large amount of feed. The bloom comes in late summer and the bees work them more heavily than any other of the more than 20 species of lespedeza which we have tried in our test garden. The reports indicate that the beekeepers in Japan and Siberia get good crops of honey from this source. Since seed is apparently nowhere available in any quantity, you will, of necessity, have to start small and make later increase from your own planting. This will have the advantage of giving an opportunity to make sure that the plant is suited to your conditions before you risk planting any very large area. There is another, lespedeza daurica, which does not grow nearly so tall which the bees work very well but the blooming period is very short and the honeyflow would be only about a week which is not long enough to get much of a crop.—FCP.

— V —

THE MYSTERY OF THE SWARM

(Continued from page 193)

queens. I would go to a yard and from every strong colony, especially those ready for swarming fever, take out a quart or so of nurse bees. These bees would have in a few days some control bees. Their removal meant that the colony would in the next week have no bees to start the swarming fever.

How do I know this? Well, from my four hundred colonies I sometimes had as few as seven swarms a year and seldom over fifteen. Obviously I might fail to remove bees from a colony which was ripe to acquire the swarm fever and a swarm might result. If I waited too long and took out a quart or so of bees when already there were two or three thousand control bees, failure would result.

The cause of the issue of a swarm I assert with all confidence is the presence of a few thousand bees of ages from ten to fifteen days, and if these are not present there will be no normal swarming. Now explain this fact any way you choose, and I think it will still remain a fact.

Connecticut.

— V —

EARLY COLONIES

Examining colonies near Agency, Iowa, the last of March I found bees with sealed drone brood. They had been wintered outside with only a tight fence to the north. The colonies were further advanced in brood and in bees than any I have previously seen. Cold, wet weather since has hindered bees some. There seems to be much clover and the outlook is favorable for the year.

J. W. Stine, Iowa.

CASCARA

YOU had an article recently on the Cascara tree and its honey. There was a time when there was a great deal of Cascara here in Coos County, Oregon, but it has been cut for the bark used so much in medicine.

Cascara grows in the timber where the trees are not too thick and it also grows well in the open. I have one in front of my house that is nearly 20 inches around at the ground, with a large bushy top. The bees work on it from early in the morning until near dark. The bloom is a small cream color, the flower being small, causing the bee to visit quite a few to get a full load. It starts blooming about the middle of May and will last until the middle of June.

I have seen ripe berries while there was still some bloom. I suppose there are thousands of young trees that have come up since the larger ones were cut and they begin to bloom when they are quite small. There have been many hundreds of acres of hilly, timber land cut over in the past few years. Some of this cut-over land comes up to fireweed and some to figwort and huckleberry, which also yield good early honey.

Yes, this is the center of the Cascara country, but it is also found in other sections. There used to be a lot in the north part of the Willamette Valley. I am sure it would grow in many places if planted. When ripe, the berries are about the size of a large pea, nearly black, and each with three seeds. The dry bark is now selling at 20 cents a pound. I have a young tree which came from seed five years ago near my wood shed and it is over four inches around at the ground and full of bloom. I don't know how the trees would stand transplanting, but I expect they would do well, especially when small. I had a tree that wintered here a few years ago when it got 18 to 20 degrees below zero. The cold did not hurt them. It is a hardy tree.

Chas. E. Watts,
Oregon.

— V —

MONTANA REPORT

In bulletin 425 covering Montana insect pests the thirtieth report of the state entomologists from the Montana State College, a report is given of the activities of the State Apiarist. Beekeeping has expanded in Montana from a total of 30,000 colonies in 1941 to 44,000 in 1944. However the last two years have shown a distinct drop in production per colony. The expansion is largely accounted for by a movement of apiaries from other states and partly by the expansion of existing establishments within the

state. From the report of inspection it is evident that progress has been made in the area where control of American foulbrood has been attempted. The tabulation of inspection results indicate that there exists a small group of operations which reflect unfavorably on the disease situation indicating that if progress is to continue, commercial industry must be brought under closer surveillance than has been possible with the present program.

During 1943 the State Apiarist recommended the use of American foulbrood resistant bees as an approach to the problem. Orders were pooled under a non-profit agency and queens were made available to beekeepers, about 2,000 queens being distributed to eighteen Montana beekeepers in this manner. The reaction from this experimental application ranged all the way from very satisfactory to very unsatisfactory. The queens were criticized more in regard to their other qualities than as to their disease resistant characters.

Infection with *Nosema apis*, a disease of adult bees, was coincident with the total decimation of one 20-colony apiary in the spring of 1944. It was also associated in 1943 with spring dwindling. The source of infection was considered to be contaminated water supply. Usually *Nosema* is not regarded as serious in Montana although the actual role of the pathogen is not well understood.

Montana bee industry has had a small frontier until a recent date. State apiarists have studied the areas where commercial honey production is undeveloped to find new places for commercial production. As a result the last three years 12,000 colonies have been placed in productive sites and information on this territory has been freely offered to those who wish it. The methods used have resulted in the production of approximately a million pounds of honey and 20,000 pounds of beeswax in 1944.

— V —

HEDGE FOR WINDBREAKS

From Wisconsin comes a request for suggestions for planting shrubs suitable for windbreaks which will provide pasture for the bees.

Two of the best shrubs for this purpose which are suited to the severe mid-west climate are caragana and Tartarian honeysuckle. The caragana, also known as Siberian pea tree reaches a height of about twenty feet. It produces an abundance of yellow pea-like flowers in late spring that are very attractive to the bees and when abundant yield considerable honey.

If the caragana and the Tartarian

honeysuckle are planted in alternate rows about ten feet apart the result will be a dense double hedge of sufficient height to provide good wind protection. The honeysuckle grows about eight to ten feet high with large numbers of closely growing shoots. It flowers profusely in spring and yields nectar freely over a rather long blooming period.

Such a hedge surrounding an apiary will provide efficient wind protection and at the same time yield nectar and pollen at the time when forage is essential for the stimulation of brood rearing in preparation for the harvest of a later crop.

Both these shrubs are offered by many nurserymen in the mid-west region. Both are hardy far north and are commonly planted in the prairie provinces of Western Canada. While serving well as hedge material they are well suited to individual planting in the selection of ornamental planting for parks, roadsides and home grounds.

— V —

POLLEN SUBSTITUTES

All beekeepers located where there is a shortage of pollen should be interested in the experiments which have been done on the use of pollen substitutes and pollen supplements. It has been observed that many apiaries in the clover region are often just about destitute of pollen in May and brood rearing is greatly reduced at a critical time. Beekeepers in the South often suffer heavy losses for the same reason.

It has been reported from the tupe-lo region that pollen is so scarce that bees fail to build up to full strength before the honeyflow and part of the crop is never obtained. Producers of package bees and queens sometimes encounter weather conditions such that no matter how much syrup is fed to bees, the pollen supply may be too limited for the heavy brood rearing which they like previous to the shipping season.

In view of the serious results that follow pollen shortage after package bees are received in the North, all purchasers of package bees should be interested. If no pollen is present in the hive or can be collected from the field, package bees will only dwindle and die instead of building up. Undoubtedly this is the cause of the loss of thousands of packages every year and is especially serious now when bees should not be lost.

George H. Rea.

A NEW BEE REPELLENT FOR POISON DUSTS AND SPRAYS

By ARTHUR G. HILDRETH

THE poisoning of honeybees is not only an economic loss in honey and wax production, but also causes much greater losses in diminution of crops dependent upon bees for pollination of the bloom of the plants for development of seed and fruit. The honeybee is a self-propelled monoplane capable of alighting on flowers and taking off from them. She is nature's most efficient device for carrying pollen from one plant to another. It is astonishing to know the number and variety of plants which are entirely dependent upon the honeybee for pollination. The fruit grower finds it necessary to keep bees, or to have bees present at the times of blossoming; and the same is true of the cranberry and other berry growers, vegetable growers, and growers of most types of seeds.

As it became more and more necessary to protect nearly all kinds of foliage with insecticide applications there developed a distinct and increasing loss of bees that discouraged beekeepers and crop growers from keeping bees, even for pleasure or as a hobby. At first it was thought that the poisoning of bees could be prevented by halting spraying during the blossoming period. No doubt this policy was a help, but it has failed to check the serious losses for three reasons.

1. Not all people follow this rule.
2. The drinking habits of the bees are such that they take water from condensation of dew, extrusion of moisture, and precipitated rain upon the green foliage. If this foliage has been dusted or sprayed near the hives the bees often take up these poisons for their water content or their similarity to pollen.
3. Moist arsenicals have a sweet taste, making them attractive to bees during periods where there is not a close abundant supply of sweeter tasting liquid available in the form of nectar from the flowers or extrafloral nectaries of plants.

This poisoning is sometimes imperceptible to the hive owner or to the individual who sprays or dusts the foliage. The bee which drinks the moistened poisons may die before she can return to the hive, and drops unseen in the fields, woods or pastures. The results are perceptible only in dwindling colonies which must be strengthened by addition of bees, requeening, feeding for winter; and in unprofitable crops for the agri-

culturist, if he does not secure reinforcement of the hives.

The writer of this article has been a beekeeper here for more than forty years. In the early period it was not uncommon to obtain 100 lbs. of surplus honey per hive. Now, with less hives in the vicinity it is rare that a surplus is produced, or even an amount sufficient to carry the colony through the winter months. Every year now four pound packages of bees from the South are purchased for pollinating my fruit bloom. This year there was difficulty in getting the package bees. Other sections of the country are beginning to feel the harmful effects of insecticides and the demand for packages is on the increase with the supply diminishing. Some effective measure to afford social security to the two hundred billion industrious winged agricultural workers domiciled in this country should be forthcoming soon, for the economic losses are serious right at a time when production of food, even in America is in a critical state.

The Middlesex County Beekeepers' Association which is in the midst of the Nashoba fruit belt first called my attention to the necessity of putting repellents in insecticides, and use of creosote as a bee repellent gave good results in some of the liquid sprays. Mr. Walter M. Copeland, President of the Massachusetts Federation of Beekeepers' Associations has called the attention of the Massachusetts State College of Agriculture to insecticide poisoning of bees, and valuable preliminary work has been and is being done there. The problem seemed to be the discovery and use of a repellent that will be equally good in a liquid spray or in a dust; that can be added in such quantities that it will persist until the poison is washed off by rain; that cannot harm the foliage or the operator; that will not react with other ingredients of insecticide formulas; and that will be inexpensive and easily obtained in unlimited quantities.

As a research development chemist, as well as a fruit grower and beekeeper I have given considerable time to the solution of this problem, and at the present time I announce there is one such material which will meet these requirements of a suitable repellent. Synthetic powdered camphor I find to be the ideal substance. Preliminary work which I have instituted in my own orchards and which I have personally conducted leads me to

recommend its use. It is a bee repellent. It is not injurious to foliage. It is pleasant for the personnel. It is longlasting in its effectiveness. It adheres well to foliage and is not affected by sunlight or water. It is a neutral substance.

It is a slowly volatile solid. Camphor dust mixed with insecticidal dust must be kept in airtight non-vented containers such as sealed paper sacks. About 2% of dry spray material should be powdered camphor in order to persist in the dust between the periods of complete washoffs where rains are approximately 10 days apart in temperature 70° F. or over. Natural camphor has to be specially treated to adapt it for use in dusts, but is suitable when powdered as a repellent ingredient for liquid spray formulas. The commercial synthetic powdered camphor is suitable for both purposes, and it will be readily obtainable at low cost after the war. It is probably the only perfectly safe compound that will "tag" all digestive insecticides so that honeybees will not ingest them to their own and man's undoing.

Massachusetts.

— V —

LADINO CLOVER

A Nebraska reader enquires "What can be expected of Ladino Clover as a source of nectar?"

Ladino clover is really a giant variety of the common white Dutch or pasture clover that came from Italy. In localities with sufficient moisture it does very well and where it finds conditions suited to its growth the beekeeper can expect it to yield honey which is very similar to that produced from white clover.

Ladino clover has become established in many western localities along the irrigation ditches or in wet valleys where there is plenty of moisture. It does poorly in areas subject to periods of prolonged drouth. It has a very shallow root system as does the common white clover and suffers from dry weather in much the same manner.

— V —

SULFATHIAZOLE

Many beekeepers will use sulfathiazole to treat American Foulbrood. I think it should only be used where the disease is in evidence. Everyone should be advised to report harmful effects. Remember in the army only the medical personnel administers sulfa drugs with the patient under observation. Certain people are allergic to sulfa. What will be the effect of sulfathiazole in honey on people.

William Rueter, Jr.
Oklahoma.

The Production of Queen Bees



ARRANGEMENT OF QUEEN YARDS

By E. C. Bessonnet

IN establishing a queen yard there are several things to consider if unnecessary losses are to be avoided. The amount of crowding a yard can stand will depend on the natural objects available to help queens find their nuclei. Trees and shrubs are ideal as markers for the queen and the regularity of the arrangement of the nuclei help. Thousands of queens are lost in a good sized queen yard each year because markers to help the queen are not provided.

If the nuclei are on the ground it is wise to arrange them in groups of one, two, three and four at irregular intervals. In addition to having the different numbers together, the nuclei can be so arranged that they face different directions. When it is necessary to put them on stands as many do in the South or for protection from ants, a stand holding different numbers can be made and rows staggered to permit the queen to find their nuclei easily. Even with these precautions losses are heavy when there are strong winds. If it is possible to plant shrubs all around the yard, this would act as a wind-break. We must bear in mind that queens are not going in and out every day and unless we help them with a careful yard arrangement many losses will result and often they will be as high as sixty per cent.

Care of Breeding Queens

Breeding queens which have

been thoroughly tested and whose daughters have been tested deserve more than usual care. Breeding queens should have their egg laying restricted to just a sufficient amount of combs to provide grafting larvae. We make it possible for the queen to lay eggs on only one comb leaving her confined in a cage with excluder sides designed to hold a single comb. This cage is placed between the brood combs in the center of the colony where the bees will maintain the right temperature and give the queen attention. As combs are removed from the cage every two days they are kept near the cage. When a grafting comb is needed one will be found outside the cage.

The cage is constructed with solid ends and a bottom made with light galvanized iron with a sliding cover of the same material. The two sides are zinc excluders cut to fit and soldered to the end. At both ends is placed a cut in which to drop the end of the frame. When changing frames, be careful when lifting, as the queen is in danger of being injured or killed. Look over the comb and if the queen is not there she will be found inside the cage.

Before putting in another comb, be sure the queen is safe on the comb first, or better still, put her on one that was pulled out if she is not already on it, and then by holding her by the wings she can be put on the

top of the comb after it has been placed in. She will soon crawl down and the cover can be put on.

In addition to conserving the energy of the queen, there are special attentions which we should consider so the larvae of the breeding colony will measure up to our ideal. We have the food problem complicated during the period when there is little pollen and honey. Without a balanced food diet, larvae will be poorly fed, resulting in stunted queens. Overcoming food deficiency is not easy when a shortage of pollen exists. The collection of pollen with pollen traps will help provided that such a plan is put into operation in sufficient time.

When honey is not available supplementary sugar syrup may be used. Combining both of these food elements provides a natural balanced diet for the larvae.

It is well to remember that enough bees must be kept in breeding colonies to insure proper temperature and proper nursing of the larvae. So we have the three essentials in producing well fed and well developed larvae. The effect on the ultimate queen cannot be questioned.

In the fall when the breeding queen is no longer needed, it is best to remove her from the cage and let her take full charge of the colony. She will soon cease laying entirely and needs no further confinement.

Drones for the Queen Yard

When caging bees to stock nuclei, the bees in the hive should be smoked through an excluder to avoid caging drones. Every drone should come from selected colonies not from colonies with questionable drones. Direct shaking of colonies in outyards results in wholesale mating of queens with these drones that will result in inferior matings. Every queen in the yard should be supplied with the best drones available and to assure mass drone flights drone combs should be supplied to the colonies from which they are produced.

It has been definitely established that the majority of queens mate at least twice if weather permits the second mating. It would be interesting to know whether or not the second mating has any beneficial effect on the queen as far as laying more and longer is concerned.

In the South where queen rearing operations started early, we find it profitable to start feeding colonies in the queen yards during early January to stimulate egg laying in drone cells so drones will be available by February. The starting time of queen rearing must be based on the availability of drones, therefore there must be drone eggs in the cells at least a month before grafting.

The Answer

HOW CAN WE USE THE POORER COLONIES IN A HONEYFLOW TO BEST ADVANTAGE?

IT is impossible to eliminate the second line colonies in our yards. Even when all the effort possible is given to equalize colonies and all colonies have best of care there are always some that are not as good as others and fail to build up before the main flow, some due to early supersedure, some due to old queens slowly becoming drone layers, and various other reasons beyond the control of the beekeepers.

Nevertheless these colonies are of value even if they produce no surplus. They can be used as queen reservoirs or they can be broken up into nuclei for increase, generally building up before the flow is over, sometimes sooner.

A good way is to put all the sealed brood in a hive on a new stand with a new queen or queen cells, leaving one queen back on the old stand with the field bees. Both will build up.

Jos. J. Schrock,
Indiana.

— V —

For several years we have been swapping locations, preferably while the bees are working, with colonies about to swarm or with extra strong colonies. This does two things. Flight bees of the strong colony added to the weak one soon builds them to storing strength and should the strong colony be about to swarm its loss of strength will prevent swarming. It is best to destroy queen cells if they are present in the colony. This is a good plan to equalize the entire yard or to build up nuclei.

F. W. Lesser, New York.

— V —

If we want to increase or maintain the present number of colonies a good plan is to build the poorer ones up in the honeyflow so they will be in first line condition for the next season. Or some of the poorer colonies may be used to advantage as double colony units. If the queens are good they can be used to advantage by giving booster package bees to build them up in a favorable locality.

Preston Kinard, Jr.,
Mississippi.

— V —

At the beginning of a flow in a sizable yard some colonies are very strong. They can spare a comb or two of bees and brood with plenty of

young emerging brood. Place twelve to fifteen of these combs in supers over a weak colony. In a few days the weak colony will show up in the supers and the whole yard will go to town.

J. G. Burtis,
New York.

— V —

Of course I would try not to have weak or second line colonies at the time of the main flow by giving them proper management from the previous August on, and having a queen capable of maintaining a strong colony by the first week in August. Unite weak colonies in the fall, and in the spring either unite or build up weak colonies with queenless packages. All colonies should be wintered in two or more stories with plenty of stores with a top as well as bottom entrance.

I think breeding will correct a lot of weak colony trouble. If I were to buy a hundred chickens from twenty different breeders (I am a poultryman first) what could I expect in the way of performance from my poultry flock? Nothing. Yet I have been in bee yards where the bees were bought at more varied sources. The queens were bought wherever they were cheapest. A beekeeper should find a breeder who can supply queens with the characters he needs and requeen all his colonies with that strain so any queens or drones he uses for breeding will be of desirable character.

R. W. Buffham, Wisconsin.

— V —

The beekeeper has three arch enemies; poor wintering, foulbrood and poison insecticides. One of them will get you sooner or later. So divide your poor colonies, head each division with a new queen and keep them ahead for a rainy day.

M. E. Genung, New York.

— V —

Make an inspection of the bees as early in spring as practical. Mark poor colonies, and reduce them to one story or one and a half. Pick a strong colony nearby, the next one to it being the best if it has the proper strength. Place a screen over the strong colony, remove the poor colony from its bottom board and set it over

the screen. Provide an entrance for the top colony.

Without having reduced the strength of the colony below you have a two-queen colony, only a better one than by the usual method of pulling brood from a strong colony, and then introducing a new queen. The queen is already introduced in this case and probably has some brood of her own. If she is a good queen she will make more rapid progress than one introduced. There is also the advantage of getting a two-queen colony in operation earlier than could be done with the queens obtained from the South. At the start of the main flow uniting is done the same as in the two-queen method of operation but the most promising queen of course is retained.

Harold L. Kelly,
Maryland.

— V —

Poor colonies are usually the result of poor queens which can be disposed of and the bees united to another colony. If the fault is apparently not with the queen but due to the fact that the colony is from a recent swarm or results from bad weather conditions, etc., the colony will probably build up to be valuable for a later honeyflow.

The poorer colony may also have its brood chamber placed above supers and above an excluder over another colony in a regular two colony stack-up, with separate entrances. This works fine during the early part of the season and after the colony is built up to full strength the top may be removed to its own stand. This results in quick and well filled sections and combs and allows plenty of room for ventilation and lessens swarming.

E. H. Wagner,
Missouri.

— V —

Where increase of bees is not desired, but the beekeeper wants an increase in honey, two or more poor colonies should be located side by side during the late winter and early spring. At the beginning of the honeyflow take apart these colonies, placing the best combs of brood in a hive body at a central point between these two, removing old queens, giving the combined force a laying queen. If necessary, super.

Also the location of overpopulous colonies may be exchanged with weak colonies, as by Cale's re-location plan. I prefer it under certain conditions, and with the less antagonistic bees, as when they are all snowed under with a honeyflow.

For increase, a year ahead of schedule, let the poorer colonies build up on the honey and pollen to be first line colonies for the next season and (Please turn to page 202)

QUEEN FAILURE

THE young larva from which the queen bee develops is a very delicate creature. Gilbert M. Doolittle, one of America's greatest queen breeders, stipulated that a temperature of at least 85 degrees was the minimum for grafting and he regarded a somewhat higher temperature as desirable. He assumed the correct temperature for normal activity in handling cells was from 85 to 95 degrees.

In view of the schedule of mass production required of the present day operator who sends out thousands of young queens each month, one wonders what proportion of them are produced under such conditions.

It seems very probable that half of the output of large outfits are handled at much lower temperatures at some stage of development. Perhaps this one thing may account for a large part of the queen failures so commonly reported as coming from commercial sources.

— V —

SUMMER BEE MEETINGS

MANY of the usual summer meetings of beekeepers will be cancelled this year because of the restrictions on travel in wartime. The regulations issued by ODT permit local gatherings as usual. Where only local travel facilities are used there are no restrictions. In cases where more than fifty persons come from a distance and must use automobiles, trains or busses, meetings cannot be held without a special permit. A large number of general conventions have been cancelled to comply with this restriction. Now that the war in Europe has ended there is a heavy movement of troops and equipment toward the west coast and our men will soon be coming back from Europe so that all possible equipment for public use will be needed by the armed forces for several months to come.

— V —

BEEES AND RADISH SEED

IN its April 20 issue, the Seed World has a very interesting article about "Radish Seed Production in Michigan," by Keith C. Barrons and J. C. Kremer. The article is of interest to beemen because they conclude that bees are very important in the polli-

nation of radishes grown for seed. They state that seed will not form without the aid of insects in the transfer of pollen and that honeybees are by far the most common and effective insects in the pollination of this crop. The May, 1945, Quarterly Bulletin of the Michigan Agricultural Experiment Station contains a detailed report under title, "The Influence of Honeybee Habits on Radish Seed Yields," by J. C. Kremer.

The radish has long been known as a source of nectar much visited by the bees. In seed growing areas it may prove valuable to local beekeepers.

— V —

BEEES FOR HYBRID VEGETABLES

THE Burpee Seed Co., of Doylestown, Pennsylvania, are pioneers in the production of hybrid vegetables. Much labor is involved in the production of some hybrids. Burpee has set up two defloration hybrid cucumber projects in which bees will be used for the distribution of pollen. One of these is in Iowa in cooperation with Prof. F. B. Paddock, state apiarist, and the other at Doylestown. They are also planning to use bees to see whether they can increase the yield of stock seed of squash and cucumbers.

Dr. S. W. Edgecomb, Director of Research in the Burpee firm, is well known in the Middle West through his former work in the Department of Horticulture of Iowa State College and his later work as head of the horticultural work in Manitoba University.

Although the use of bees for pollination is not new in the Burpee business, an extensive investigation is planned to determine how far they can be depended upon in the distribution of pollen in the production of hybrid vegetables. At present more than 100 persons are needed to carry on the work since so much of it has been done by hand.

— V —

WAX RENDERING

WITH the average beekeeper, wax rendering is about the most disagreeable task about the apiary. Unless one has the right equipment he is unable to get all the wax and the effort often results in a most unsightly mess. Now that there are commer-

cial concerns prepared to render old combs the beeman will usually save time and money by packing all bits of wax and old combs in burlap bags to ship to such rendering centers. The big wax presses operated under steam pressure will get enough more wax to pay freight and rendering charges and leave the beekeeper free to devote his time to pleasanter occupations.

— V —

THE CREEPING LEGUMES

AMERICAN agriculture has, for the most part, been built around short-lived legumes. Of necessity a short rotation has resulted since either red clover or sweet clover last only two years and must be reseeded. Officials of the Soil Conservation Service say that they need a long-lived legume that spreads by means of rhizomes, to control serious soil erosion. The little white Dutch, or pasture clover, is the only thing thus far commonly available and that does not serve the needs of any purpose except pasture.

In the American Bee Journal test plots are three new legumes which are very promising and which apparently will serve the desired purpose. A creeping clover, (*Trifolium ambiguum*) has already been described in these columns. It thrives amazingly for us and spreads very fast. The stems are similar to red clover and the blooms have some resemblance to alsike. Plants set about eighteen inches apart in the row in May, 1944, now make a solid mat with twenty to forty plants for each one set.

A creeping trefoil, (*Lotus major*), is similar to the bird's-foot trefoil except in its rooting habits. Instead of a tap root it spreads with runners similar to the white clover. Our plots came through the winter in good condition and are spreading rapidly. This is said to be the first successful planting of this species in the mid-west.

The creeping alfalfa is equally promising and came through the winter in fine condition. Little is known as to the origin of this variety. It spreads in much the same way as the clover and the trefoil. All three of these new plants offer promise of serving an important place in the agricultural program and if they prove adaptable over a large area should provide more dependable bee pasture than the old short-lived varieties which must be so often renewed.

How to Do It

HOT KNIFE FOR UNCAPPING

Set a ten-pound pail of water on a stove and let it heat until it is good and hot. Put at least two or three uncapping knives into the water. Then you have a hot knife to use all the time. You can exchange the one you are using when it is cool, for one of the hot ones. This makes for rapid uncapping.

Douglas W. Decker,
Washington.

— V —

FIXING INNER TUBE

Anyone who owns a car these days surely has had inner tubes with a slow leak next to impossible to locate. I fix such tubes this way: I puncture a hole on the outside of the tube with an ice pick, insert a small funnel, and pour a half pint of extracted honey which has been heated so that it will run well, into the tube, working it all around good, so as to cover the entire inside. Then I patch the hole I punched in the tube with the ice pick and this is the end of the trouble. I have used tubes treated this way that were practically useless before. My tires are for model A Ford 4.75-21, larger tubes would require more honey.

Chas. H. Brown,
Pennsylvania.

— V —

WOOD FOR REPAIRING EQUIPMENT

Soft pine lumber being scarce and high priced these days, it may be in order to say that the material in a used California lettuce or melon shipping crate is satisfactory for making repairs on equipment and inner covers, etc. Here the grocery stores will give them free for the asking. They are frequently wet and heavy when unpacked but if put in the house for ten days, they will be dry and light.

C. H. Pirkey,
Virginia.

— V —

UNITING A SWARM WITH A COLONY

Put the swarm queen in a cage. Then push the hive forward about an inch. Place the swarm queen in her cage at the rear opening, dump your swarm at the rear too. After the swarm has gone in, either release or destroy the swarm queen as your judgment dictates. I have used this method for years even with the blackest of bees.

R. E. Cook, Iowa.

TO KEEP DOWN GRASS AND WEEDS

Keeping grass and weeds down around hives is one of our problems. The soil is fertilized by bees that die and vegetation flourishes. By removing an inch of top soil, along with the weeds and grass that may be in it, my hives are free in most instances for the rest of the season. I use a long handled spade to scoop off around and beneath the hives, removing any accumulations that prevent ventilation and harbor enemies of the bees. I use my smoker to subdue the guards and take care not to strike or jar the hives, keeping the spade keen and sharp.

W. P. Kinard,
Mississippi.

— V —

TO GET RID OF MICE

To get rid of mice in your honey house or any other similar place where mice are found, take about two or three pounds of grain or feed, and mix in an ample amount of gopher poison. Place this mixture in a shallow pan on the floor of the building. No more mice. I have tried this method and it works wonderfully. Be careful with the fumes of the gopher poison, and keep poisoned grain away from all animals.

Jack F. Heinz,
Manitoba.

— V —

LIFTING OUT THE FIRST FRAME WHEN GOING THROUGH YOUR BEES

After breaking the first frame loose from the other nine with my hive tool I find that it is easily lifted by inserting a screwdriver under one end and raising it up. It can then be grasped by the fingers of one hand and held in this position and the other end raised in the same manner. Then it is slowly lifted out. I carry my hive tool in my right rear pocket and the screw-driver in my left rear pocket and they are always handy.

Earle Miller,
Kentucky.

— V —

TO DISSOLVE DRY SKIM MILK

In making the pollen supplement quoted by Childers on page 83, March A. B. J., he says it is difficult to dissolve the dry skim milk. However, here is an easy way to do it: mix the sugar thoroughly with the skim milk powder and then pour the mixture into the hot sulfathiazole solution. You shouldn't have any more trouble with that.

Phyllis Edwards,
South Dakota.

THE ANSWER

(Continued from page 200)

poor queens, bad combs, etc. corrected. I have also utilized such colonies as caretakers of extra bodies of combs when reducing colonies for comb honey production, thereby giving the poorer colonies a boost at the same time. In the present season I have preferred to combine them or equalize them for surplus honey.

I remember nursing a poor colony a year ahead of schedule back in the twenties. The result was twenty dollars in section honey for the next two consecutive seasons, or forty dollars for three seasons.

W. P. Kinard,
Mississippi.

— V —

Poor colonies will make little honey and bring the per colony average yield down. However, they do add their bit to the total crop. Nevertheless, give good queens, good combs, good locations and do all you can to make them top notchers.

Carl M. Teasley,
Tennessee.

— V —

Rarely would a beekeeper aim at having second line colonies. Try to keep them weeded out. It is a never ending job to hold the second liners in check. Nonproducing colonies tie up equipment and time, which if devoted to productive first line colonies might boost profits as much as fifty per cent. Nevertheless we can not hope to eliminate second-class colonies to solve the problem for all time. Even if we did some expert would again re-classify first line, and so it goes.

If it is known early in the season that the queen is good and of superior strain, this plan works well: Combine that colony with a package of young bees from the South, set it on top of a strong colony in the yard, as in a two-queen system, until the beginning of the main flow when it may be removed.

If a colony has a poor queen, the stock inferior, and combs often choked with pollen and honey, kill the queen and introduce a package of bees with young queen.

Autumn is a good time to get rid of poor colonies by uniting. Check again the next spring for additional poor colonies. I try to find whatever there may be left of second line colonies at the beginning of the main flow and eliminate them or add booster bees, as the case requires.

The control the beekeeper has over his second liners will determine the advance he makes with the first line

colony, for it gives a measure of selective breeding.

Harry T. Starnes,
Indiana.

— V —

QUESTION FOR NEXT MONTH?

What is the best way to put supers on in a flow—on the top—at the bottom—when using full drawn combs—when using foundation?

An important question we think. Answer by the fifteenth please.

— V —

OBSERVATIONS ON NOSEMA

(Continued from page 194)
ing treated food about May 1st and today May 14, three hundred eighty days after, there is not a single cell of foulbrood in any of my hives. Think of the thousands upon thousands of bees that have lived out their cycle in these eighty hives when they and their progeny have never tasted sulfathiazole and yet are clear of foulbrood. The colonies were tested in late October for Nosema and were found clear of that malady. By all the rules there should be millions of foulbrood spores on these combs to start anew. Why don't they? Well I think they are laying await for Nosema and quite possibly other ailments to do the necessary spade work—that is, to bring the resistance of the colony down to the point where there is enough weakness for them to get in. Formalin and chlorine have been used to sterilize combs but this is the first attempt to sterilize the bees themselves. I wonder if that is the secret? I don't know, but here is an organism that lives in the intestines of the bee and gains its sustenance exactly like coccidiosis in chickens. Everybody knows what that does to little chickens. If you were a poultryman would you use as breeding stock any individual stunted by coccidiosis or even tolerate it in your yard? I don't know anything about the package bee business and I am not going to condemn a single shipper for sending me Nosema infected bees for the reason that this Nosema matter is new and not well understood and these shippers did not know they had it, and moreover could not know what to do about it. I was considerably put out at the time with the behavior of the resistant queens just noted, but after all of this experience with Nosema I stand ready to recant it all. There is no sense for anyone to try denying the laws of selection and I do not believe the Creator wasted any time making bees any different from other creatures. What happened as I now see it is that a resistant queen was placed at the head of Nosema infected workers, which as infected

nurse bees, continued handling on down the infection, thereby nullifying any resistance the queen had in her power to give. I too think Nosema is the No. 1 problem for us beekeepers. For although it may not kill, it weakens the colony, cheating us out of many tons of honey.

Missouri.

— V —

SUNFLOWERS

J. H. Sturdevant of St. Paul, Nebraska, sends us a newspaper clipping regarding the cultivation of sunflowers as a source of sunflower oil and asks what we have to say regarding the nectar from sunflowers.

The sunflowers that are grown for the purpose of crushing the seed to obtain oil yield only pollen for the bees. We have never heard of any honey being obtained from the cultivated variety.

Wild sunflowers, on the other hand do yield nectar freely at times and yield surplus honey of a dark color and strong flavor. Occasionally there is a report of a large crop from this source. The Jerusalem artichoke, common to the Mid-West, is a variety of wild sunflower and yields some nectar very late in the autumn. This species has edible tubers that are raised for food to a considerable extent in some European countries.

Even though sunflowers should be cultivated in large acreage for the production of seed or of oil they are not likely to become of great importance to the beekeeper in this

country. Should the Jerusalem artichoke become popular as it has in France the beekeeper might profit although the quality of honey obtained from it is inferior.

— V —

BEEKEEPING IN BELGIUM DURING THE WAR

In 1940 the Germans robbed many apiaries in their advance to the sea and many hives perished. In 1941 beekeeping was placed under control of the "Corporation of Agriculture," a fascist body devoted to their own aims. "The Belgique Apicole" was discontinued and a new magazine "Information Apicole" was issued. Honey was taken from beekeepers under pretense of supplying it to hospitals but they got none. It went only to the Germans. The beekeeper who gave no honey received no sugar for his bees.

The crop has been small each year during the war because most of the soil was plowed up for cereals and beet crops. Honey was quite scarce in 1944, many beekeepers uniting two or three hives together for wintering.

The price of bees has become enormous. A well-wintered colony brings from \$70 to \$100 and nobody knows what the year of 1945 will bring. The Germans took everything they could. The necessity of food for civilians will probably not improve the honey crop prospects.

A. Mousty,
Belgium.

American Honey Institute

Commercial State Bank Building, Madison 3, Wisconsin

Just as the Institute was prepared at the beginning of the war for the great demand for literature and material on honey so it shall be ready to meet the conditions that the post war period may bring. Valuable pieces of promotion are ready to be launched.

The American Honey Institute is economically sound and socially desirable. It gives valuable service to the nation in war and peace time.

The measure of the Institute's progress can be credited to the remarkable and wholehearted cooperation of its members.

The following letter from an authority on home freezing procedures supplies the answer to

questions regarding the use of honey in freezing fruits:

"Honey is suitable as a sweetening agent but one must be careful to use a light flavored honey. It would be very poor practice to use all buckwheat or any other strong honey. In this case the flavor of the fruit would be covered up by the strong flavor of the honey.

"I suggest that you use the straight honey in the proportion of one part of honey to four or five parts of fruit, on sliced or crushed fruits. If you pack whole fruits with honey, I suggest that you add 1 cup of water to each two cups of strained honey and then use just enough of this diluted honey to cover the fruit."

FEEDING BEES DRY SUGAR

By A. V. DOWLING

AFTER making a talk on feeding bees dry sugar, at the Southern Conference meeting held at Greensboro, N. C., I have received many inquiries for information on the subject. For the past four years a number of Georgia honey producers, package shippers and northern beekeepers have cooperated with me in experimenting with feeding dry sugar on a commercial scale. This method has proved successful, especially as a labor saver.

Dry sugar can be used successfully in place of sugar syrup and has some advantages over feeding syrup. It eliminates the cost of cans, jars, inside trough feeders and other type feeders. It takes longer for the bees to invert, or use, the dry sugar, therefore it lasts them longer. As it lasts longer it saves the beekeeper time, gasoline and truck wear. One man can feed a whole apiary in less time than it takes to mix and prepare syrup. It eliminates the excitement and robbing that feeding syrup causes. As dry sugar is in the most concentrated form it saves wear on the bees while inverting it, for sugar syrup, regardless of the sugar content, has to be evaporated and inverted, which causes extra wear on the bees.

Dry sugar can be used for winter stores if fed before cold or freezing weather. It can be used to prevent starvation in the spring in colonies that do not have enough stores to last until the honeyflow starts; used in commercial queen production and in shipping package bees; used to introduce queens during a honey dearth; used to install package bees and to lessen the loss of bees and brood due to bees working some types of poison plants or loss from poison dusting or spraying.

There are two methods of feeding dry sugar, one on the bottom board and the other on top of the brood nest. As most package shippers operate one story colonies they use the bottom board method. Honey producers have extra supers and can either feed on top of the brood nest or on the bottom board. I like the bottom board method best, as it is faster. Raise up the front of the hive 18 inches, so the sugar will fall to the back of the hive, and pour in 5 lbs. dry sugar, set the hive down and put in an entrance check. The reason for the check is to keep the bees from fanning and carrying out the sugar on their legs as they go in and out of the hive. If more feed is needed, feed 5 lbs. again in 10 to 15 days, depending on the weather and colony strength. To use the other method, remove all supers

above the brood nest, place one sheet of newspaper over the brood nest, put on an empty super, pour in 5 lbs. of sugar and replace the supers. Two feedings are sufficient in most cases, as this is equivalent to 20 lbs. of syrup mixed half and half.

A day or two, after you feed the sugar, if you examine the entrance you will find small white pellets that look like grains of sugar. If you taste them you will find they are not sweet, but are probably crystals with the sugar content removed or a filler in the sugar. Do not jump to the conclusion that the bees are wasting the sugar. Bees in strong colonies will carry a small amount out on their legs if the sugar is not placed well back from the entrance.

Do not wet or dampen the sugar, as it causes the sugar to harden like hard candy, which delays the bees in inverting it. Do not feed in freezing weather while the bees are clustered and expect them to consume the sugar. Do not pour the sugar into dry combs to feed, as sometimes the combs become damp and the sugar hardens. Then the bees cut out the comb to get the sugar. Do not feed drone laying colonies or weak, queenless colonies, or weak colonies with a half pound of bees, as it is a waste of sugar and time.

The next time you have to feed try a few colonies with dry sugar and see how you like it.

—Georgia.

— V —

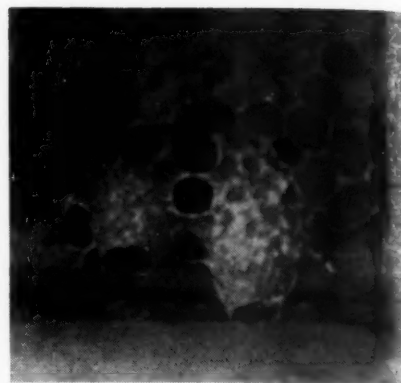
POST-WAR JOBS

Students, teachers, parents, vocational counselors and others interested in postwar jobs will find information on opportunities in beekeeping and also in physical therapy in two new occupational abstracts just published by Occupational Index, Inc., New York University, New York 3, N. Y. at 25c. Each abstract covers the nature of the work, the training required, methods of entrance and advancement, earnings, advantages. References for further reading are recommended.

— V —

WHY BEES TURN BALD

Are your bees getting bald? Don't worry, the department of agriculture advises. According to Dr. Burnside, beekeepers figured that when their critters' crowning glory began to get a little thin on top they were fixing to come down with paralysis. Dr. Burnside remarks however, that the sign is not infallible—that bees often lose their hair for a very human reason—other bees pull it out.



DESTROYING QUEEN CELLS MAY BE BAD PRACTICE

By George H. Williams

DESTROYING queen cells may be a serious fate for the colony if the condition of the colony is not known.

One of the first things a beginner learns is that destroying queen cells will prevent the bees from swarming. So when he opens a hive and finds cells he begins to destroy them, no matter what condition exists in the hive or in what stage of development the cells are. The old queen may have just led off a swarm or the bees may have decided to supersede the old lady because she is failing in egg laying. Sometimes she may be killed accidentally or by some unknown cause. All the eggs may have hatched and all the larvae be too old to rear queens. This leaves the colony without any means of rearing a queen. Now unless something is done to provide a queen, the colony will soon go to nothing and the wax worms will make short work of the combs causing the owner to think the worms killed his bees.

Most every year some one will come for a queen, saying, "My bees swarmed a few days ago and I destroyed all the queen cells I could find to keep them from swarming any more. Today when I looked in the hive I could not find any eggs or brood and no queen, I looked good two or three times. I want to get a queen from you at once." That makes me want to do a lot of talking trying to explain what should have been done instead of destroying queen cells.

I will say that I was no exception to this group when I first learned that I could keep the bees from swarming by killing the cells every seven or eight days. There was no one in the neighborhood from whom I could get queens or advice, so I had to learn by sad experience that tearing down every cell I found, was not the thing to do.

Never destroy a cell until you know

the condition of the colony. If the old queen is not there better leave a cell, and that is not quite enough for that one might not hatch. Better take two frames of brood and bees with one or more good cells and some honey and set it in an empty hive with the entrance closed for at least the first day then with a very small entrance to prevent robbers from robbing the honey out. If the colony fails to develop a laying queen the two frames may be re-united with the queenless hive as soon as the queen is laying, by simply taking out two frames from the center of the hive and quietly setting the two frames with queen bees in their place. Close the hive for at least a week.

—North Carolina

—V—

BEEKEEPING ANNUAL 1945

The Beekeeping Annual for 1945 edited each year by Mr. Herbert Mace is at hand. It is a 32-page booklet containing advertisements, report of British beekeepers, examinations, an article by Annie D. Betts on recent advances in science and practice, list of bee books issued during the year, obituaries, and a report of the Ministry of Agriculture, together with other general information of associations, etc.

The price of the Annual is six pence and it may be obtained from the editor of The Annual Office, Harlow, Essex, England.

—V—

POLLEN SUPPLEMENT

I have tried feeding pollen supplement outside the hive, above the inner cover, under the brood frames and in cakes over the brood frames. In the first three the supplement was too remote and the latter method while better was not satisfactory, as the outer surface of the cakes dried and hardened even before they could be placed in the hives the bees having difficulty in consuming the supplement or leaving it entirely alone.

I have used a method this year that is very satisfactory. I mix pollen with equal parts of whole-wheat and soybean flour in sugar syrup until it forms a thick, moist paste. After removing the cover, and using a little smoke, I take a knife and spread the supplement over the bee spaces for the entire length of the brood frames, forcing the supplement down between the frames for about an inch. Because it is convenient to the brood nest, it is readily attacked, both from above and below and quickly consumed before it hardens. This method with a constant supply of syrup should produce rousing colonies for the earliest flow.

Alexander James,
Massachusetts.



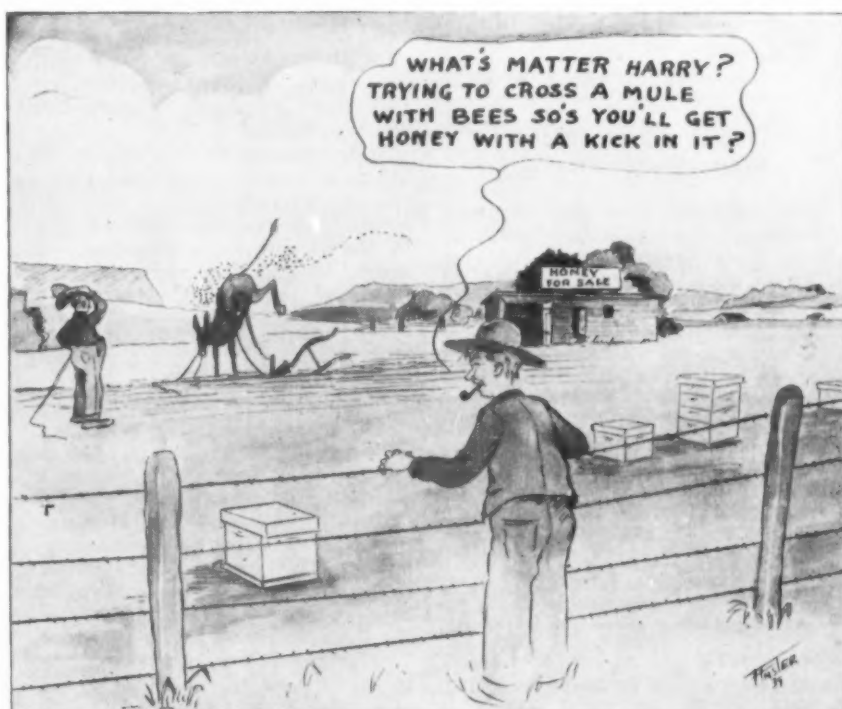
TO THE AMERICAN PEOPLE:

Your sons, husbands and brothers who are standing today upon the battlefronts are fighting for more than victory in war. They are fighting for a new world of freedom and peace.

We, upon whom has been placed the responsibility of leading the American forces, appeal to you with all possible earnestness to invest in War Bonds to the fullest extent of your capacity.

Give us not only the needed implements of war, but the assurance and backing of a united people so necessary to hasten the victory and speed the return of your fighting men.

William D. Leahy
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Anderson's Quality Three-Band Italian Queens

Awaits your order.

Price 75 cents each.

Prompt service, quality and perfect
satisfaction guaranteed.

We appreciate your trade.

B. A. ANDERSON & CO.
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Soy Bean Flour (Pollen Supplement) and Pollen Traps

We are distributors of Staley's Lo-Fat High Protein expeller processed soy flour for beekeepers. We offer the finest quality in our soy flour and pollen traps.

Killion & Sons Apiaries
PARIS, ILLINOIS

QUEENS, 75c Each

Bright 3-Band Italian bees and queens of highest quality. Purely mated. Safe arrival and satisfaction guaranteed. Packages express collect. Health certificate furnished.

Untested queens	\$.75
Tested queens	1.50
2-lb. package with queen	3.00
3-lb. package with queen	4.00

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PACKAGE BEES

Italian Queens

	1-24	25-49	50 up
2-lb. pkg.	\$3.80	\$3.60	\$3.55
3-lb. pkg.	4.70	4.50	4.35

Extra Queens after June 10, 90c each.

We guarantee full weights on all packages and prompt shipment.

Oscar Arnouville
HAMBURG, LOUISIANA

IMPERIAL

3-Band Italian and Caucasian Queens

Rared by the best methods from the best available stock. For the remainder of the season

Untested \$1.00 Each

THE COFFEY APIARIES
WHITSETT, TEXAS

NORTHERN BRED LEATHER COLORED ITALIAN QUEENS

Daughters of stock bred for resistance (our own strain) \$1.00 each—25 or more 90 cents each.

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Meetings and Events

Federation Veterans Rehabilitation Committee

The National Federation of State Beekeepers' Associations has established a Veterans Rehabilitation Committee to function in aiding returning discharged veterans who might be interested in securing training in beekeeping. The committee is composed as follows:

Mr. Elmer Carroll, R. R. 5, Box 181, Lansing, Michigan.

Mr. H. J. Rahmlow, 424 University Farm Place, Madison, Wisconsin.

Mr. J. F. Reinhardt, Georgia Coastal Plains Expt. Sta., Tifton, Ga.

Mr. Carroll, as Chairman, has already fired the opening shots for this committee by contacting various officials connected with and interested in the rehabilitation of veterans, including the Veterans Administration, U. S. Employment Service, Selective Service, and veterans organizations, from some of whom cooperative responses have already been received.

It is suggested that each state association immediately compile a list of beekeepers who are willing to employ veterans and make this list available to their own state Selective Service, the Federation office, and to the Rehabilitation Committee.

Possibly the double-return postcard could be used by association secretaries in contacting such individuals of their membership operating on such a scale as to be able to provide employment to veterans or who might be willing to assist veterans in getting acquainted with beekeeping through voluntary instruction where services are not needed.

Individual beekeepers who are willing to cooperate in this program are requested to pass on their desires both to their State Association and to the Federation Committee. The actual conditions or terms of the employment should be stated by the producers, including remuneration, length of and future possibilities of employment.

V. G. Milum,

— V —

What About the Veteran?

When John W. Holzberlein, President of the National Federation of State Beekeepers Associations appointed me chairman of the Rehabilitation Committee, I realized that here, indeed, was a real challenge to the Federation and the industry.

Within a week I received letters from the American Legion, Veterans of Foreign Wars of the United States,

National Selective Service System and the Veterans Administration pledging full cooperation in our program.

Based on suggestions from these various organizations, our program will be as follows: 1) To assist the veteran interested in beekeeping in his academic work should he choose to study beekeeping in school. 2) To assist and advise the veteran beekeeper in re-establishing his business. 3) To arrange employment for those experienced in beekeeping and for those who wish to learn the business through practical application.

Now that the various organizations have promised full cooperation, it is up to the honey producers to bring up the other flank.

Are you willing to aid a returning serviceman interested in beekeeping?

The Committee makes these suggestions: Get in touch with your local Selective Service board, and your local County Agricultural Agent through whom the Selective board will work whenever a veteran expresses a desire to enter the agricultural field, and furnish them with your name and address, and a few details as to period of employment, etc. Also furnish this information to your state association secretary, mailing a copy to me.

We have promised to supply to Selective Service, U. S. Employment Service, American Legion, and Veterans of Foreign Wars, the names of beekeepers who will aid veterans interested in beekeeping. To set up this list, we must have immediate response from every patriotic honey producer concerned about this program. There will be no obligation. Merely give us all the facts, wages (for experienced and apprentice) and season of work. Then when we receive a communication through one of the above organizations in the name of a veteran, we can complete the contract. I hope you will act on this at once, sending the desired information to me at Rt. 5, Box 181, Lansing, Michigan.

Other members of the rehabilitation Committee are: J. F. Reinhardt, Georgia Coastal Plains Experiment Station, who has been asked to cover the package bee phase of employment; and H. J. Rahmlow, 424 University Farm Place, Madison, Wisconsin, who will help co-ordinate the employment of those interested in commercial honey production. Our committee will also be glad to accept offers of employment from com-

mercial honey packers, supply manufacturers and apiary inspectors.

Let's put the Federation on the map by performing an outstanding service to veterans interested in our industry. We're counting on YOU!

Elmer Carroll, Chairman,
Rehabilitation Committee
National Federation of
State Beekeepers' Ass'n.

— V —

Middlesex County (Mass.) June 30

In the herb and bee garden of Mrs. Hollis Webster, 1960 Massachusetts Avenue, Lexington, Massachusetts the Middlesex County Beekeepers Association will meet at 2:00 P. M. on Saturday, June 30th. Mrs. Webster will give out lists of honey plants and show the bees at work on various fragrant herbs in bloom. The beekeepers will bring their picnic suppers, cups, plates and spoons, for hot coffee and probably ice cream.

H. R. Stevens, Pres.
164 Conant Road,
Weston, Mass.

— V —

Idaho Association Opposes Dusting

The Webster Idaho Honey Producers' Association at Meridian, unanimously opposed aerial row crop dusting to reduce plant diseases and pest damage. L. W. Bushby, secretary said they opposed the action of State Aeronautics Director, A. A. Bennett of Pocatello. The resolution declared drifting dust and spray would kill colonies and advocated the work done by power sprayers, which are not injurious to bees. The resolution also declared it too late in the season at present to move bees. There have been thousands of colonies which have gone out of southern Idaho the last few seasons to other states. Next spring will bring a far larger migration because of the use of the poisons. Those who stay will slowly go out of business.

— V —

New Rochelle (N. Y.) June 17

New Rochelle Association will hold their regular monthly meeting at the home of Mr. and Mrs. James A. Bailey, 18 Burling Lane, New Rochelle, N. Y., Sunday, June 17th at 2:30 P. M. Adding supers for the flow will be the main topic. Members are urged to make use of the question box. Refreshments will be served at the close of the meeting.

A. M. Barnes,
Ass't. Sec'y.

— V —

Bronx County (N. Y.) June 10

Bronx County Association will hold the regular monthly meeting, Sunday, June 10, 2:30 P. M. at the home of

Wish to thank all who have been so patient and understanding in our effort to deliver your bees under war conditions, as well as those who have not been able to get bees from us.

We hope in the future to be able to supply more PACKAGE BEES with even better delivery service. There have been some delays which were beyond our control that upset the entire spring schedule. We sincerely hope you were not badly put out by this and will remember the labor shortage has hit us also. We expect to ship bees next year and look forward to your order next January.

ROSSMAN & LONG

P. O. Box 133

Moultrie, Georgia

Now, is the time

to plan for late summer and early fall
requeening.

Daughters of stock bred for resistance to A. F. B. are a real help in the fight to control disease. Include the use of this stock in your improved management for honey production.

Get daughters from improved parentage, produced under superior conditions, and from stock which is checked for performance.

Write for shipping dates

Prices:

1-9 \$1.50; 10-49, \$1.40; 50-99, \$1.30; 100 up, \$1.25

IOWA BEEKEEPERS ASSOCIATION

State House, Des Moines, 19, Iowa

DIXIELAND'S

Leather-Colored Italians, Selected Queens. Send
your order in NOW.

1-24	.	.	.	.	\$1.10
25-99	.	.	.	.	1.00
100 up	.	.	.	.	.90

DIXIELAND APIARIES, Greenville, Ala.



OUR BEES WILL DO JUST THAT

**Extra Care • Fast Service
High Producers • Prolific-Gentle**

Commercial Beekeepers—Now is the time to buy queenless package bees to boost those weak colonies to bring them into top condition for production. Now is the time also to fill up all your extra equipment. Even though late, these new colonies will build up and go into winter quarters in excellent condition; sometimes, will even make you a super or two of honey.

Beginners and Hobbyists—Now the easiest time of year to start your bees and to manage them. With ideal weather and with our gentle, advanced stock of bees, your beekeeping will be a real outdoor recreation.

Replace Queens Now—Now is the time to replace all your old or poor queens. A young queen will stimulate the colony to higher production and put the colony into ideal condition for winter with abundance of young bees, ready to go next spring. *All queens sent by Air Mail, postpaid.*

PRICES

Lot	Queens	2 1/4-Lbs.	3-Lbs.	4-Lbs.	5-Lbs.
1- 5	\$1.35	\$4.75	\$5.25	\$6.25	\$7.25
5-15	1.30	4.65	5.15	6.15	7.15
15-25	1.20	4.50	5.00	6.00	7.00
25-up	1.15	4.40	4.90	5.90	6.90

Large Orders, Write or Wire

Above package prices include queen. Queenless packages, subtract \$1.15 from price of package with queen. All queens are airmail, postpaid, but package bees are F. O. B. shipping point and are shipped Express collect. It is preferable to ship package bees by Railway Express, however, they can be mailed and in that event, customers should include postage.

Terms: Small orders, cash in full. Large orders, 20 per cent deposit, balance to be received two weeks before shipping date. U. S. Funds.

A LATE SEASON DISCOUNT OF TEN PER CENT is now effective on all the above prices. You can buy no better queens or bees; secure no better service; or get more dollar value any where. We use more fully screened cages; more syrup for the trip; with four express and mail trains daily.

THE DANIELS APIARIES
PICAYUNE, MISSISSIPPI

Harry Goldner, 3319 Palmer (Off Boston Post Road). There will be an examination of colonies. Dr. E. F. Phillips, of Cornell University, is expected as guest speaker. All interested are welcome. Refreshments will be served.

Harry Newman,
Secretary.

— V —

Ottawa, Muskegon and Kent Counties (Mich.) July 25

Ottawa, Muskegon and Kent Counties Associations will hold their annual meeting Wednesday, July 25 at 10:00 o'clock A. M., at Grand Rapids, in Johnson Park. An educational and entertainment program will be featured. All beekeepers are invited. Bring along your fellow beekeepers and something to eat. Ice Cream and coffee furnished by the association.

N. J. Smith,
President.

— V —

Herman Short

We regret to announce that Herman Short, son of H. C. Short, well known to the package industry and to northern beekeepers and customers, was recently killed in an aerial collision over North Carolina. The deepest sympathy of the entire industry we have no doubt goes to his father not only for his loss from the home but his loss of a prospective partner.

Lt. Herman C. Short returned from a tour of combat duty as a pilot of a fighter plane on a baby flat top in the Pacific. He flew a Grumman Hellcat. On nineteen missions he came in direct contact with Japs for which he was awarded the Air Medal.

— V —

John M. Amos to Tennessee

John M. Amos, formerly of State College, Pennsylvania, has accepted the position of state apiarist for Tennessee to succeed George H. Rea, who has retired. Pennsylvania loses a good man and Tennessee gains a good one. He will also be assistant state entomologist and his office is in the Tennessee Department of Agriculture, 403 State Office Building, Nashville 3, Tennessee. He will assist Professor G. M. Bentley in entomology.

— V —

Lower Rio Grand Valley

Beekeepers of the Lower Rio Grand Valley in Weslaco, Texas organized the Lower Rio Grand Valley Beekeepers Association with E. B. Ault,

Weslaco, president; H. Hansen, LaBlanca, vice-president; and Sam Nixon, Mission, secretary-treasurer. Forty beekeepers joined the association.

— V —

Bermuda

Bermuda, similar to many other sub-tropical areas, is a beautiful spot at any time of the year. Flowers bloom the year through. Various fruits are available at the different seasons. Frosts are an unknown factor here and the temperature seldom goes lower than the upper 50's. Flowers from the gardens are picked at all times of the year for house decoration, no greenhouses needed.

The Bermuda Beekeepers' Association held their annual and monthly meeting on April 19, 1945 at the Bermuda Agricultural Station in the apiary, Paget East (Paget Parish, eastern portion). I gave a talk on queen rearing. Interest in the science of beekeeping has been renewed during the past three years. In May I will give a talk to the Association on brood diseases of honeybees.

The officers of the Association elected for the year are:

President—C. M. Williams, Southampton.

Vice-President—Leon Perinchief, Pembroke.

Secretary-Treasurer—J. B. Ferguson, Pembroke.

Advisory Committee—W. R. Evans and J. M. Waterston, Bermuda Department of Agriculture.

R. L. Parker,
Bermuda.

— V —

THESE THINGS SHALL BE ADDED

"Bring ye all the tithes into the storehouse, and prove me now herewith. If I do not open you the windows of Heaven, and pour you out a blessing that there shall not be room enough to receive it. And I will rebuke the devourer for your sakes, and he shall not destroy the fruit of your ground, neither shall your vine cast her fruit before the time in the fields. And all nations shall call thee blessed: for ye shall be a delightful people."

The present day beekeeper realizes that he is living in the midst of peril, when the hearts of strong men grow weak. Since the world has certainly gone mad with lust for power, the thinking individual cannot fail to look into the future, without apprehension. The world lies crucified in the blood and agony of countless numbers, victims of man's insane greed.

Our spirits are troubled. Where can we look for security? The answer lies solely within ourselves and in the destiny of our nation. The destiny of the nation can only be what the characters of its people has made for it.

So look within if you wish to determine the future. Is your profession and your industry still known for the integrity of its followers? It has been my privilege to meet and know most of Wyoming's beekeepers and I know that the really successful ones are a living testimony to the advantages of living in harmony with natural law. I have yet to see a successful beekeeper that was not an all-round good man. They seem to be outstanding in whatever community they are found. They are respected and looked up to. Their opinion on any matter is valued. They have excellent health habits, morals beyond reproach, active in church, school and community affairs.

They are not satisfied to take their ease, but lend a hand to others less fortunate than themselves. They are the first to give to a deserving cause. The average man is equally surprised to see beekeepers laboring among their bees with youthful zest, long after the ordinary man has retired from active business life. These strong, active men are fit masters of their servants, the bees.

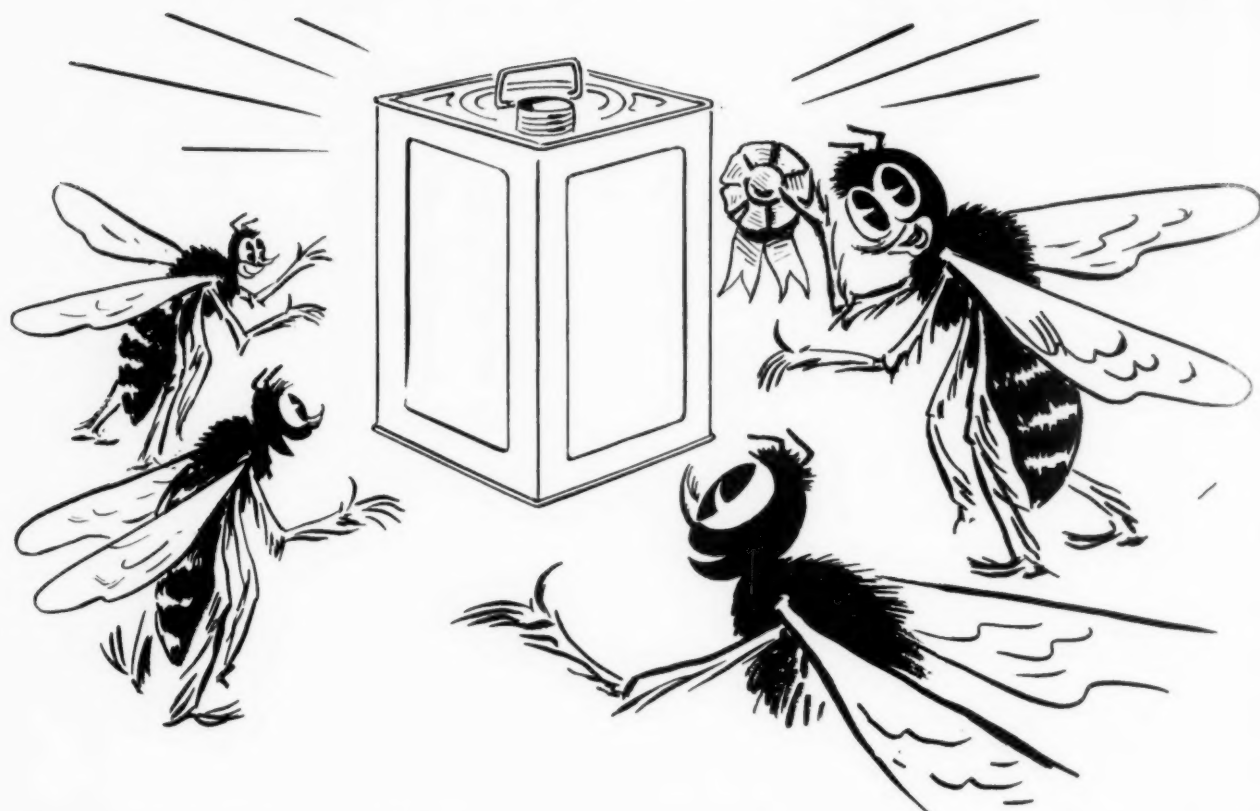
The true measurements of your success is the measure of your happiness. A well rounded, happy, peaceful existence is more to be desired than all the riches the world can offer. That is the state of being of real beekeepers. They may never know riches, but they will never know poverty.

So if you wonder why someone else is doing a little better than you, gets a little better yield and a little better price, perhaps it is yourself. It takes a heap of living to give the wisdom that the intelligent man has. No one can have mental and spiritual defects and not have them manifest themselves in business as well as in personal affairs. The law of cause and effect goes right on operating despite willful blindness. You cannot buy your way out of this court.

If you desire success as a beekeeper or in any other endeavor, first prepare the groundwork with a good character, be faithful to the natural law and you will prosper and live in peace and happiness.

"Seek ye first the Kingdom of God and His righteousness and all these things shall be added unto you."

Mrs. Naomi Addleman,
Wyoming.



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CROP AND MARKET REPORT

Compiled by M. G. DADANT

For our June page, we asked reporters to answer the following questions:

1. How is the crop so far?
2. Colony strength—Is it at seasonal peak?
3. Much sugar feeding necessary?
4. Plant prospects compared to 1944?

Crop So Far

The northern half of the country, of course, has had no crop. In most sections, even the stimulative flow of apple, dandelion and locust were impaired by the cool, rainy weather. The flow has been disappointing in the Atlantic coastal states, particularly in the northern sections of Virginia and Maryland, extending down into North Carolina owing to the cool, rainy weather and in the impossibility of bees gathering from the early tulip poplar.

Perhaps the flow has been normal in Georgia but far below normal in Florida, mostly due to the dry weather and fires. Alabama and Mississippi report that better than average conditions prevail but there are not a great many commercial beekeepers in that territory. Florida and Arkansas report that the crop so far has been light, chiefly owing to the floods covering the usual source of supply—the swamps.

Texas southern sections have not been any better than usual. Arizona and New Mexico perhaps have had considerable more honey than normal.

When we reach California, however, conditions are quite conflicting, with an indication that the surplus honey has not been anywhere near what was anticipated earlier. It is doubtful whether orange will run over 60% of last year. Other early flows also were hindered by the foggy, cool weather, although no excessive rains have fallen.

Colony Strength

About all of the northern states, ranging from Maine through to the inter-mountain states, find colony strength at least about normal and in many instances above. In some cases, this has been a drawback to the beekeeper because it meant colonies reaching their peak before the main flow in early June and either a retrogression in condition of colonies

or the necessity of quite heavy feeding. Perhaps it has been best in some sections, particularly the northern sections where spring was late in coming and colony conditions, therefore, were somewhat delayed. The inter-mountain territory colonies are found to be of about average strength and even in California, the colony condition has been very slow to approach a peak.

Feeding

Not much feeding has been necessary in the entire strip of southern states but if you include California, there are quite a lot of beekeepers feeding. Of course, this is exclusive of package bees because in almost all instances, package bees have to be fed to build them up more rapidly. There is a growing report of the amount of feeding that has been done in connection with pollen that is artificial and the result of stimulation of the colony thereby.

Throughout the northern states unless the beekeeper was forearmed and left a super of honey on the bees, feeding has been quite general, particularly after May 1. In fact, it is necessarily so since the colonies build up rapidly to strength and with more brood to feed and more young bees in the hive, stores have been depleted very rapidly. If the beekeepers can secure sugar enough and if the weather does not stay bad too long, it may be possible to continue the build up of the colony so as to have a "booming" colony when the honey-flow does arrive. As this is being written on May 21, in our section we have had one or two days of good weather, the balance of the month of May being cold and rainy but not sufficiently bad to interfere with the growth of the colonies, although requiring a lot of feed. I think such conditions are quite general over the entire white clover area.

Honey Plant Conditions

The writer does not remember of ever having more enthusiastic reports on honey plant conditions from Maine to the inter-mountain states than have come in this year in private letters as well as in reports. While the acreage of sweet clover is not any more abundant probably than last year, the condition of the plants is re-

markable owing to the wet fall and the equally wet and cool spring which has brought all plants forward. In addition, the little Dutch white clover is abundant in pastures throughout the white clover regions and beekeepers are anticipating that perhaps they may have one of the old-fashioned "white clover years."

As stated formerly, in the Mississippi delta, floods have interfered considerably with the honey plants. In Texas probably plant conditions are normal. Some sections of the inter-mountain territory report conditions under normal and this applies particularly to Montana and south through Wyoming into Colorado. Montana reports that it was too dry and conditions far from desirable.

In the states of Washington and Oregon, as well as in Idaho, conditions are normal or above and prospects satisfactory.

California is probably over with most of its orange crop by the time this is written. Reports were that bees were getting rapidly into condition and that the tag end of the orange crop might be better. Mountain plants and sage look somewhat better than last year but conditions will have to be favorable from now on to make anything like a large crop in California although the very early prospects seemed to point that way.

Summary

All in all, we believe that colony conditions are better than normal in most sections with the exclusion of California and perhaps some parts of the inter-mountain territory. Whether they remain so from the date this is written until the main crop is on, depends largely upon (1) the weather, (2) whether the beekeeper can secure sugar and will feed his bees, especially to keep colony morale building rather than have a slump.

When it comes to honey plant conditions, we believe that they are above normal and good prospects for a much better crop than last year. Long range forecasts are extremely problematical and can only await on the developments of the weather. We see no reason, however, to look for last year's short crop if you have favorable conditions. Even the heavy rains throughout the central areas have delayed the farmer and it may be possible that the honey plant, sweet clover, may not be plowed up. The fields may be left in some cases, fallow and thus the possibilities of honey crops be increased in this respect. The season from June 1 to June 20 will largely determine just how the crop is coming along.

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HONEY WANTED Carloads or Less
HIGHEST PRICES PAID

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THREE BANDED ITALIAN queens of finest quality. 1 to 25, \$1.10; 25 to 50, \$1.05; 50 up, \$1.00 each. Satisfaction guaranteed. Health certificate with every order. Alamance Bee Co., Geo. E. Curtis, Mgr. Graham, N. C.

WE CAN NOW SUPPLY you for balance of season with our Caucasian queens at \$1.00 each up to 25 queens. For larger lots prices on request. T. L. Nicolaysen, Salida, California.

CAUCASIAN QUEENS again from my famous gentle honey getting strain. Ready June 15, \$1.25 each. Bird's Apiaries, Odebolt, Iowa.

ITALIAN QUEENS—Select 3-Band. 1-25, \$1.10; 25-99, \$1.00; 100 up, \$.90 each. Eugene D. Cutts, Citronelle, Alabama.

GREEN'S PROFIT-PRODUCING QUEENS will please you as they have pleased hundreds of others. Famous the country over. Where could you do better? Price 75c each after June 15th. D. P. Green, Rt. 2, Deland, Florida.

REAL PETS—Brown's non-stinging bees can be handled without smoke and veil, regardless of weather conditions, good honey gatherers. Only queens sold. Price this season \$1.25. Brown's Apiary, Cape May Court House, N. J.

GOLDEN or DARK ITALIAN queens that will please you. Honey getters and gentle. \$1.25 each. any amount for season. The Lambert Apiaries, Martin W. Lambert, Mgr., Rt. No. 1, Franklinville N. C.

PACKAGE BEES, QUEENS for June delivery, Caucasian and Carniolan. 2-lb. pkg. \$4.00; 3-lb. pkg. \$5.00. Untested queens after June 15th \$1.00 each. Tillery Brothers, Greenville, Ala.

3-BANDED Italian queens \$1.00 each. Dalice E. Crawford, Hawriver, N. C.

GOLDEN QUEENS finest quality. Fine workers. Untested \$1.25 any number. Carolina Bee Farm, W. O. Curtis, Mgr. Graham, North Carolina.

OLD RELIABLE THREE BAND ITALIAN QUEENS. Bred for production. Untested \$1.15 each. Quantity prices on request. H. C. White Apiaries, SANDIA, TEXAS.

PACKAGE BEES, QUEENS, Italians. Circular free. Crenshaw County Apiaries, Rutledge, Alabama.

HONEY AND BEESWAX WANTED

COMB HONEY WANTED. State how packed and the quantity you have. Frank H. Hauck, P. O. Box 84, Kew Gardens, N. Y.

COMB HONEY, section or bulk, also extracted. Quote prices for quick cash. Lose Bros., 206 E. Jefferson, Louisville 2, Ken.

WE PAY CEILING PRICES for wax, and remit the day the wax is received. Your wax made into medium brood foundation at 12c per lb. The Hawley Honey Co., Iola, Kansas.

HONEY AND BEESWAX. HIGHEST PRICES PAID. MAIL SAMPLES. ADVISE QUANTITY. BRYANT AND COOKINHAM, LOS ANGELES, CALIFORNIA.

WANTED—Extracted honey, white or light amber, in 60's. Ed. Heldt, 1404 W. Washington St., Bloomington, Illinois.

HONEY WANTED—Small or large lots. Send sample and amount. Rocke Apiaries, Eureka, Illinois.

HONEY WANTED—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. **HAMILTON & COMPANY,** 1360 Produce Street, Los Angeles, California.

Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department it should be so stated when advertisement is sent.

Rates of advertising in this classified department are eight cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers we require reference of all new advertisers. To save time, please send the name of your bank and other reference with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease or state exact condition, or furnish certificate of inspection from authorized inspectors. Conditions should be stated to insure that buyer is fully informed.

CASH FOR YOUR WAX the day received. Write for quotations and shipping tags. Walter T. Kelley Co., Paducah, Kentucky.

ALL GRADES extracted honey wanted. Bee supplies and honey containers for sale. Prairie View Honey Co., 12243 12th Street, Detroit, Michigan.

CLOVER HONEY WANTED—Small or large lots. Send sample, state quantity, and how packed. Ellsworth A. Meineke, Arlington Heights, Illinois.

HONEY FOR SALE

HONEY FOR SALE—We buy and sell all varieties. Buckwheat 10c. 1945 southern light amber honey 12c. We also have a complete line of glass honey jars. Busy Bee Farm, No. Abington, Mass.

FOR SALE—8 tons of fine buckwheat honey in new 60 lb. cans. Julius Seewaldt, Johnsonburg, N. Y.

HONEY FOR SALE—We buy and sell all kinds, any quantity. H. & S. Honey & Wax Co., Inc., 265-267 Greenwich St., New York.

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UNIVERSAL FARM TOOLS—Dandy 8 Piece Set: CEETEE Pliers, Waterpump Pliers, Masterratchet Pipe Wrench, Needlenose Pliers, Crescent Wrench, Diagonal Cutters, Claw or Peen Hammer, Plastic Screwdriver, \$14.85. Immediate shipment. Overnight by air to anywhere—U.S.A. Remit with order. Price list, order blank free. We have it—can get it or it isn't made. **UNIVERSAL TOOL COMPANY,** 1527 Grand, ABJ., Kansas City, Missouri.

A new combined **CONTROLLABLE FEEDER AND SWARM CONTROL.** Useful also as inner cover, bee escape and robbing preventive board in queenlessness and drying wet combs; as winter top entrance and pollen feeder. Sample with directions, postpaid \$1.95; 5 (not assembled nor prepaid) for \$8.00. **NICCOLLET COUNTY NURSERY,** St. Peter, Minn.

YOUR WAX WORKED into high quality medium brood foundation for 16c pound; 100 pounds \$12.00. Medium brood foundation for sale at 70c per pound not prepaid. Fred Peterson, Alden, Iowa.

SAVE ON LEWIS-DADANT BEE SUPPLIES AND HONEY CONTAINERS IN MINNEAPOLIS. Send list of needed supplies for quotations. Prompt shipment made from large stock. Top prices paid for honey and beeswax in cash or trade. **HONEY SALES COMPANY,** 1806-08 No. Washington Ave., MINNEAPOLIS 11, MINNESOTA.

SOY FLOUR for pollen substitute. "Special-X" Soy Flour (Expeller Method). 5 pounds \$1.00, postpaid; 10 pounds \$1.75, postpaid. 25c additional west of Rocky Mountains. Remit with order. Spencer Kellogg and Sons, Inc., Decatur 80, Illinois.

SOMETHING NEW — INSTANT NINE FRAME SPACERS. Fast, accurate, indispensable. Fat combs; easy uncapping; more honey. Set does all supers. \$1.50, postpaid. George Leys, 48 Drake Ave., New Rochelle, New York.

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LEWIS BEE SUPPLIES—Dadant's Crimp Wired Foundation. Prompt shipment from large stock. Simeon B. Beller, Authorized Distributor, Intercourse, Pa.

WRITE FOR CATALOGUE. Quality bee supplies at factory prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries, Manufacturers of Beekeepers' Supplies, Onsted, Michigan.

LARGE CASH SAVINGS can be made by letting us work your wax into either wired or plain foundation. Large independent factory manufacturing a complete line of bee supplies including extractors, etc. Selling direct saves you the agent's profit. Quick shipment from large stock. Large free catalogue explains everything. Walter T. Kelley Co., Paducah, Kentucky.

FOR SALE

300 Dadant hive bodies with 11 perfect combs each, 1000 Dadant supers with 10 combs each, 50 standard 10 frame hive bodies with combs. Several hundred empty supers and hive bodies (Dadant 8 and 10 frame). 2 Merry-go-round (Woodman) extracting comb handlers, wax press, honey heater and clarifier. Other equipment. 200 pounds Dadant's crimped wired foundation 10 11/16 deep. Honey wanted. Will trade the above for honey from this fall's crop. Melford Olson Apiaries, Red Lake Falls, Minnesota.

TWO 11-FRAME STANDS with bees. Six 10-frame stands with bees. Surplus equipment (used), well painted, half price. Unable to handle same. Emma Barfels, Gladbrook, Iowa.

COMPLETE fully equipped outfit of 1500 hives, nuclei, extractor, tanks and established package and honey production in central and northern California. Al Winn, Rt. 1, Box 729A, Petaluma, California.

500 shallow supers with frames, painted; 10 frame \$1.00; 8 75c. M. B. Hinton, Kenedy, Texas.

FOR SALE—4-8 frame Universal hand extractor, 100 gal. storage tank, 2 inch gate, 10 inch steam uncapping knife with hose, 2 gal. copper steamer. Uncapping table. Copper vat. Wax press. Bee veils, books, tools, miscellaneous items. All items nearly new, excellent condition. Priced for quick sale \$100. B. L. Flanagan, Wellsville, N. Y.

FOR SALE—100 bee shipping cages 10 cents each, 100 used 60 pound cans 15 cents each, 8 frame comb supers. Homer Blackford, Marian, Iowa.

Root's 4-frame reversible power extractor in good condition. Stanley Tyrell, Snover, Michigan.

FOR SALE—Beekeeping supplies. Tanks, power uncapper, 4 frame Root extractor, Fairbanks scales, boiler, used covers, bottoms, inner covers, queen excluders, bee escapes, pump with reducing gear, full depth and shallow supers, 10 fr. only, complete with frames, wired, not wired, or wired with foundation. Brand capping melter. 9 fr. chunk supers complete, new or used. P & G Apiaries, care Harold Gilbert, 965 West Works St., Sheridan, Wyoming.

FOR SALE—Simplicity extractor, 20 frame, \$50.00; in good condition. Not crated. Wanted—30 frame Woodman. State price. R. E. Cook, Renwick, Iowa.

FOR SALE—100 strong 2-story 10-frame colonies. Lewis equipment. \$10.00. Inspector's certificate furnished. Edward Klein, Gurnee, Illinois.

One hydraulic hive lifter, handling all sizes. One two-frame reversible extractor. Both as good as new. K. & A. Apiaries, Iola, Kansas.

USED EQUIPMENT—2 20-frame Root extractors. 1 Brand melter. 2,000 10-frame Dadant shallow extracting supers with frames. 180 11-frame Dadant shallow extracting supers with frames. 200 10-frame standard hive bodies with frames. 240 10-frame Jumbo hive bodies with frames. This equipment all in good condition thoroughly cleaned, reasonably priced. Sioux Honey Association, Sioux City 6, Iowa.

FOR SALE—My entire bee business, on account of failing health. J. J. Wilder Waycross, Georgia.

FOR SALE OR LEASE—The entire holding of Hyland Apiaries, Sylvester, Georgia, and West Elkton, Ohio, consisting of 6,000 hives bees, equipment for honey production and package bees. Factory buildings, wood working plant, foundation and wax refining plant. Boats, barge, land trucks, etc. Annual turn over \$100,000.00 Alan Eby, Owner.

FOR SALE—One thousand colonies, three story ten frame dovetailed, select combs and well painted. Could be divided for Mountain State shipment. Will sell in hundred lots with location privileges. Also 500 comb supers with sections and foundation. H. J. Warr, 1838 Main Street, Riverside, Calif.

FOR SALE—500 10-frame comb honey supers for 4¼x1½ sections, new, in crates of 5, slightly shopworn, \$3.50 per crate F. O. B. Windom, Minnesota. B. I. Evans.

WANTED

WANTED—Power driven honey extractor, size 4 to 20 frame. Also electric or steam uncapping plane. Write price, description and condition to Howard Stacey, Rt. 2, White-water, Wisconsin.

WANTED—Root Simplicity 45-frame extractor. Late model preferred. E. E. Salge, Strandquist, Minnesota.

POSITIONS AND HELP WANTED

WANTED—Discharged service man for partner. Must be experienced. Large apiaries. Box 123, care American Bee Journal.

SEEDS AND TREES

FOR SALE—Sainfoin seed 1944 crop grown without irrigation. 75c per pound up to 10 lbs.; 55c per pound in lots over 10 pounds. R. W. Brimhall, Pleasant Grove, Utah.

TANNING

TAN your deerskins, sheepskins, etc., Indian style. Details free. Wickizer, 564-A Hooper Road, Johnson City, N. Y.

MISCELLANEOUS

RANCH MAGAZINE—Do you find it difficult to secure information about sheep and sheep ranching methods? The SHEEP AND

GOAT RAISER reaches more sheepmen with more information on range sheep than any magazine published. Subscription \$1.50. Hotel Cactus, San Angelo, Texas.

THE BEE WORLD—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy, post free, 12 cents, stamps. Membership of the Club, including subscription to the paper 10/6. The Apis Club, The Way's End, Foxton, England.

DIFFERENT, that's all. Written and published for the instruction of beekeepers, contains breezy entertaining beekeeping comment each month. One year, \$1.00; two years, \$1.50. Sample, 3 cent stamp. Beekeepers Item, San Antonio, Texas.

GET your drawings and construction detail NOW for proven tried **BRADSHAW DEMOUNTABLE UNCAPPING PRESS**. No more headaches, simple to build your self. Won't rust out, last lifetime. Producers report it greatest improvement in fifty years. No heat required, will not darken honey. Adaptable any size outfit. Send \$2.00 today for **PLANS** to Bradshaw & Sons, Wendell, Idaho.

FATALLY BURNED

Henry Seitz, age 44, a farmer and beekeeper residing near Taylor Ridge, Illinois, died May 4th in St. Anthony's Hospital, at Rock Island, as the result of burns received when his clothing caught fire while starting the morning fire. His wife, after carrying their two children to safety, was also seriously burned when she attempted to beat out the flames which enveloped her husband.

Mr. Seitz was an active member and one of the directors of the Rock Island County Beekeepers' Association. He had always taken a great interest in beekeeping and worked hard for the interests of the Association and will be greatly missed by the members.

— V —

BEEKEEPING IN THIS PICTURE

In "The Agricultural Gazette of New South Wales," for August, the Honorable E. H. Graham, Minister for Agriculture, calls attention to the drift from the land and says,

"Regional development, or decentralization, is the positive answer to the drift from the land. It is not enough for us to arrest the drift from rural areas; we must plan to take population to the rural areas—to decentralize industry, bring domestic markets closer to the point of production, and support greater diversity by the chance to supply produce to handy consumers and to factories. Out of this we can expect not only happier industrial workers and greater social amenities for rural families, but a far more sound balance between production and effective markets and between production and conservation of productive capacity."

The same trend is found in this country, especially now with higher wages in the factories and cities. The movement back to the farm will come when wages go down and unemployment is general. A permanent change in the situation will come just as Mr. Graham indicates. In this picture, of course, beekeeping has a large opportunity. Today many are seeking a small diversified place as a hedge against deflation and depression, and most of them are interested in bees as a part of their program.

Do you know about the LORD'S ACRE PLAN

for support of the rural church? Get monthly reports of it in the

Farmers Federation News

3 years \$1 or send 2 cents stamp for sample copy. Address ASHEVILLE, N. C.

THREE-BAND ITALIANS

DAUGHTERS OF QUEENS BRED FOR RESISTANCE

Having made substantial increase in my queen mating nucleus, will be able to take care of your queen orders more promptly.

		PRICES				
		Queens	2-Lb.	3-Lb.	4-Lb.	5-Lb.
1 to 24	-----	\$1.10	\$3.85	\$4.95	\$6.05	\$7.15
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100 up	-----	.90	3.35	4.35	5.35	6.35

A. E. SHAW : Shannon, Miss.

QUEENS 3-Banded Italians QUEENS

Carefully selected and produced for their honey gathering qualities.

JUNE 1ST TO OCTOBER 1ST.

1 to 11	\$1.00 each
12 to 49	.90 each
50 or more	.80 each

Parcel post prepaid.

Health certificate and live delivery guaranteed.

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Flower's Improved Quality Italian Queens

Give them a trial and see for yourself. \$1.00 each, any number, write for prices on large orders.

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25-99	.85	3.15	2.35	4.15	3.35
100 or more	.80	3.00	2.20	4.00	3.20

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	1 to 24 each	25 to 99 each	100 up each
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THE POSTSCRIPT

Robert Hardin, of Atlanta, Georgia, sends some interesting extracts which he has translated from the book, "Honey Plants of Cuba," by Gonzalo Ordetx. I have the book but since it is written in Spanish I have been unable to make use of it.

One learns with surprise that Cuban beekeepers do not have any trouble from lack of pollen. Pollen bearing plants are reported as abundant in all seasons, even when no nectar is available. We learn also that some of the best honey producing locations in Cuba are unoccupied because they are in the hill country without access to good roads.

— V —

We are told that only about three dozen different plants yield nectar in important quantity in Cuba. Among them may be mentioned coffee, mango, logwood, coral vine, royal palm, and avacado. A species of morning glory commonly called Christmas bell or campanilla is said to be the most valuable source of honey in Cuba.

— V —

Janet, my three-year-old granddaughter, listens to the singing of the brown thrasher and says, "He is just talking to me." I believe it is true that very young children are far more sensitive to the voice of nature than we older folks. They also know much that we have forgotten.

— V —

With a half dozen different species of plants of the catnip family it is possible to have flowers for the bees over most of the season. *Nepeta mussini* and *Nepeta hederacea* were in good bloom the last week in April with bees working both very freely. *Nepeta mussini*, the Persian catnip, blooms freely in spring and again in late summer after the common catnip has finished its flowering. Several different species bloom freely in summer. We have two more species new to this country this season and will watch with interest to see whether they are as good as those already familiar.

— V —

The Tatarian honeysuckle is one of the best shrubs for bees. It is hardy enough to grow far north in Canada and makes a very good windbreak when planted in the form of a hedge. The flowers come at a time when the bees are in need of forage, overlapping fruitbloom and dandelion and with us lasting until white Dutch clover opens. Bees swarm over the flowers during the blooming period and give every indication of finding good pasture. If we had reason to

plant it by the acre it would add substantially to early bee pasture.

— V —

The wet weather of last season and so far this spring has brought back the white Dutch clover in such abundance as has not been seen in this locality for many years. If weather conditions are favorable for a good yield we have every reason to expect an old time white clover honey crop. As this is written on May 15, it is just coming into bloom. Usually we expect the flow to start in about three weeks after the early flowers appear. Rainfall during the first 15 days of May already is equal to the normal precipitation for the month. Plenty of moisture insures prosperity for white clover.

— V —

The bees have worked on strawberry blossoms more freely this spring than usual. Apparently the strawberry is never a very important source of nectar although at times the bees visit the flowers very freely. Too much rain when the plants are in bloom washes out the pollen and prevents good pollination. The crop here was cut very short last season for that reason.

— V —

We are discarding many good honey plants in the test garden because there seems to be no way to secure sufficient acreage to be worth while as a source of honey. Instead we are growing larger plots of the things that promise to be useful for forage, for cultivation for essential oil or which can be readily naturalized on waste land.

— V —

We are told that in Peru there is a tree tomato which grows to the height of ten or twelve feet. The fruit grows in clusters and is quite similar to our garden tomato, although some have a flavor resembling gooseberries or apricots. It is a bit surprising that it has not been brought to Florida or California where we would expect it to find a suitable climate. Orchards of tomatoes instead of oranges would be something new. There still remain many useful plants in other countries which have not been brought to American gardens.

— V —

Announcement of retirement of A. W. Finlay, as Provincial Apiarist of British Columbia, recalls one of my red letter days. Finlay and W. H. Turnbull, Western Canada's most extensive honey producer, took me on a deep-sea fishing excursion off the coast of Vancouver Island. My fish-

ing had been for bull heads in muddy Mid-Western creeks and it was a thrilling experience to pull out some of the big fellows that day. Now that Finlay has more time for fishing I would like to go back and try again.

— V —

G. A. Pauli, of Pueblo, Colorado, finds pleasure in attracting wild birds. He writes: "For several years I have enticed robins to come to me by feeding them raisins. Some became so tame as to sit on my finger tip or on my shoulders to eat the raisins."

In my book, "Birds of the Wild" I have told the story of similar experiences with blue jays, marsh hawks and others. It is not difficult to tame the wild birds, but too often it results in their death at the hands of the first man with a gun.

Our grandchildren here at Pellett Gardens have a robin so tame that it will take angle worms from their hands and carry them to the nest to feed its young.

— V —

A few good photos of Charles Dadant who died in 1902 and of C. P. Dadant who passed on in 1938 are left in the Journal office. We will be glad to send them to any of our readers who would care to have them.

— V —

"Noxious Weeds of Iowa" is the title of bulletin recently issued by the Iowa Experiment Station. It is a valuable publication written by E. P. Sylvester and R. H. Porter and contains 143 pages. If you want a copy write to Iowa Experiment Station, Ames, Iowa.

— V —

In 1939 C. W. Wood, of Copemish, Michigan sent me a few seeds of a new *Salvia* which were planted in the test plot on April 25. The few plants that were grown that year proved so attractive to the bees that the plot has been enlarged each year. It has proved to be one of the best among hundreds tried for bee pasture. It seeds freely and maintains itself readily in competition with other plants. I would like to see it tried on waste lands to see whether it can be naturalized successfully. Among many salvias which we have planted this one, (*Salvia superba*), seems most promising. It blooms over a rather long period and is always alive with bees when the flowers are open.

— V —

Another good one is *Salvia pratensis* which came to me from the seed firm of Thompson & Morgan of Ipswich, England and was planted on the same day. The flowers are somewhat larger than *superba* and it comes into bloom earlier, about Mid-May. It is also easy to establish and stands competition well. The two together provide an extended flowering period.

FRANK C. PELLETT.

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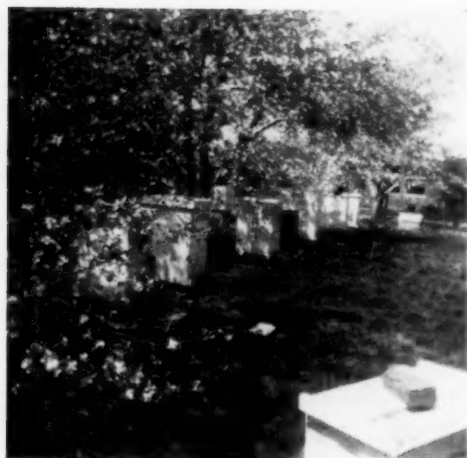
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Alsike	107,000 Acres	Grapes		1,524,000 Acres
Sweet Clover	252,000 Acres	Apricots		
Lespedeza	1,303,000 Acres	Prunes		
Oranges		Cucumbers	98,230 Acres	
Grapefruit		Cantaloupes	119,380 Acres	
Lemons	835,000 Acres	Tomatoes	238,920 Acres	
Apples	1,350,00 Acres	Watermelons	220,480 Acres	
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